

COORDINATED IMPLEMENTATION PLAN FOR BIRD CONSERVATION IN WESTERN NEW MEXICO



Snow Geese, Bosque del Apache NWR

Prepared by
New Mexico Steering Committee
Intermountain West Joint Venture

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CONTENTS

1.	Introduction.....	4
2.	Planning Objectives	5
3.	Direction and Connections	5 - 6
	North American Bird Conservation Initiative	
	International Association of Fish and Wildlife Agencies	
	Congress	
	Executive Order 13186 – Protection of Migratory Birds	
	Other Mandates and Programs	
4.	Migratory Bird Conservation Initiatives	8 - 11
	North American Waterfowl Management Plan	
	Partners in Flight	
	U.S. Shorebird Conservation Plan	
	Intermountain West Regional Shorebird Plan	
	North American Waterbird Conservation Plan	
5.	Other Bird Conservation Programs.....	11 - 12
	Important Bird Areas (IBA) Programs	
	Ecoregional Conservation Planning	
	Endangered Species Act	
6.	Priority Bird Species in New Mexico	12
7.	Priority Habitat Types	12
8.	Priority Species-Habitat Relationships.....	13
9.	Bird Habitat Conservation Areas / Functionality Landscape Sites.....	13
10.	Landscape Mapping	13
11.	Habitat Conservation Goals and Objectives.....	15

LIST OF FIGURES AND TABLES

Figure 1	Bird Conservation Regions in New Mexico	7
Figure 2	Bird Habitat Conservation Areas in western New Mexico.....	14
Table One	Priority Species for Bird Conservation Programs	19
Table Two	Prioritization of Major Bird Habitats in western New Mexico.....	22
Table Three	Priority Bird Species by Priority Habitat Types.....	23
Table Four	Bird Habitat Conservation Areas in western New Mexico.....	28

APPENDICES

Appendix A	Priority Species from Bird Conservation Programs in New Mexico	29
Appendix B	New Mexico IWJV Bird Habitat Conservation Area Descriptions.....	35

1. Introduction

In 1986, the North American Waterfowl Management Plan (NAWMP) was adopted by the United States and Canada to address the conservation and restoration of waterfowl, other migratory waterbirds, and the habitats on which they depend. The Plan, as adopted, aims to restore waterfowl populations to 1970-79 levels and establishes specific population objectives for twenty-five species of ducks, five species of geese, plus trumpeter and tundra swans. It was updated in 1994 to include full participation by Mexico, and again in 1998 to include language strongly encouraging Plan partners to improve coordination with other wildlife initiatives, including those directed at other migratory birds, endangered species, fisheries and biodiversity. It was updated again in 2003.

Six public-private partnerships, or joint ventures, were originally established by the Plan to coordinate the implementation of NAWMP and achievement of population and habitat objectives along flyway lines across North America, with eight more joint ventures having been formed in recent years. These joint venture partnerships include active participation by the U.S. Fish and Wildlife Service, USDA Forest Service, Bureau of Land Management, Natural Resources Conservation Service (USDA) and other federal agencies, as well as state wildlife management agencies and a number of wildlife conservation groups, including Ducks Unlimited Inc., Pheasants Forever, The Nature Conservancy, and National Audubon Society. The North American Wetlands Conservation Act (NAWCA) was established by Congress in 1989 to implement the objectives of NAWMP. This program, re-authorized by Congress in 2002 at \$75 million/year by 2007, encourages and rewards partnerships among all wildlife conservation initiatives through two matching grant programs, a standard grant program and a small grant program.

The Intermountain West Joint Venture (IWJV) was established in 1994 as the eleventh habitat joint venture. It encompasses parts of eleven Western states, including the western 2/3 of New Mexico. The eastern third of the state is within the Playa Lakes Joint Venture. Public agencies and conservation groups have worked as partners through an IWJV State Steering Committee in New Mexico to identify, protect, restore and enhance wetlands and other important habitats for waterfowl and other migratory birds, as well as native resident birds.

The New Mexico Steering Committee (NM Partners in Flight) includes representatives from the New Mexico Department of Game and Fish, New Mexico State Land Office, U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, New Mexico Natural Heritage Program, and Hawks Aloft. The group has been meeting in one form or another since 1995.

In 1995 the IWJV Management Board adopted an Implementation Plan, which was intended as a framework for implementing the NAWMP in western New Mexico and other parts of the Intermountain West, and for developing more specific wetland focus area plans in each of the IWJV states. The New Mexico Steering Committee of IWJV defined six waterfowl and wetland focus areas. These were incorporated into the larger IWJV Implementation Plan in 1996.

Waterfowl objectives were established for the Intermountain West and for New Mexico by the IWJV Management Board, and are included in the IWJV's 1995 Implementation Plan.

In 2001, the IWJV Management Board determined that the 1995 IWJV Implementation Plan should be updated, as a Strategic Plan, and that it should be rewritten from the ground up, state-by-state. The Board also decided that this updated planning process should attempt to coordinate NAWMP objectives with other existing migratory bird initiatives operating within the Intermountain West region, as well as programs for non-migratory birds such as sage grouse. That same year, the Board funded a project to work through state steering committees in developing coordinated "all bird" implementation plans in all

the states of the Intermountain West Joint Venture. The New Mexico Steering Committee met on a number of occasions in 2002, 2003 and 2004 to develop a state implementation plan.

The coordinated “all bird” implementation plan for western New Mexico will not only provide the basis for an updated and expanded overall IWJV Implementation Plan, it will also assist the IWJV Management Board in considering and ranking various habitat protection, restoration and enhancement projects for funding via the North American Wetlands Conservation Act (NAWCA) and other programs.

2. Planning Objectives

1. Create a planning forum, through the New Mexico Steering Committee of the IWJV in which representatives of state and federal conservation agencies and wildlife conservation groups work collaboratively to develop coordinated habitat goals, objectives and projects that address the conservation needs of all bird species in western New Mexico.
2. Draw from existing bird conservation plans in creating a coordinated planning document that reflects the species and habitat priorities of all bird conservation programs in western New Mexico. This document is intended to guide the Management Board of the Intermountain West Joint Venture (IWJV), as well as IWJV partners, in implementing and updating statewide IWJV goals and objectives for bird conservation in western New Mexico.

3. Direction and Connections

By taking a lead role in coordinated implementation planning in the Western states, the IWJV Management Board is following the direction of the **North American Waterfowl Management Plan** (NAWMP - 1998 Update). IWJV is also responding to recommendations and direction from other national sources and programs to attempt coordination of waterfowl and wetland habitat planning with the identified goals of other migratory bird programs. These other national sources and programs include the following:

North American Bird Conservation Initiative (NABCI): NABCI was formed in 1998 as an international forum for public and private efforts to coordinate international conservation efforts of existing major migratory bird initiatives. One goal of NABCI is to increase the effectiveness of, and coordination between, existing and new bird conservation initiatives, including the North American Waterfowl Management Plan. As a recommended framework for coordinated bird management, NABCI has adopted and mapped ecological units called Bird Conservation Regions (BCR), a number of which cover the area of the Intermountain West Joint Venture.

There are three BCRs which cover the western 2/3 of New Mexico, the area within the IWJV: the Southern Rockies/Colorado Plateau, the Sierra Madre Occidental, and the Chihuahuan Desert. The BCRs defined by NABCI (see **Figure 1**) will likely become the standard ecological regions/divisions for migratory bird planning and management.

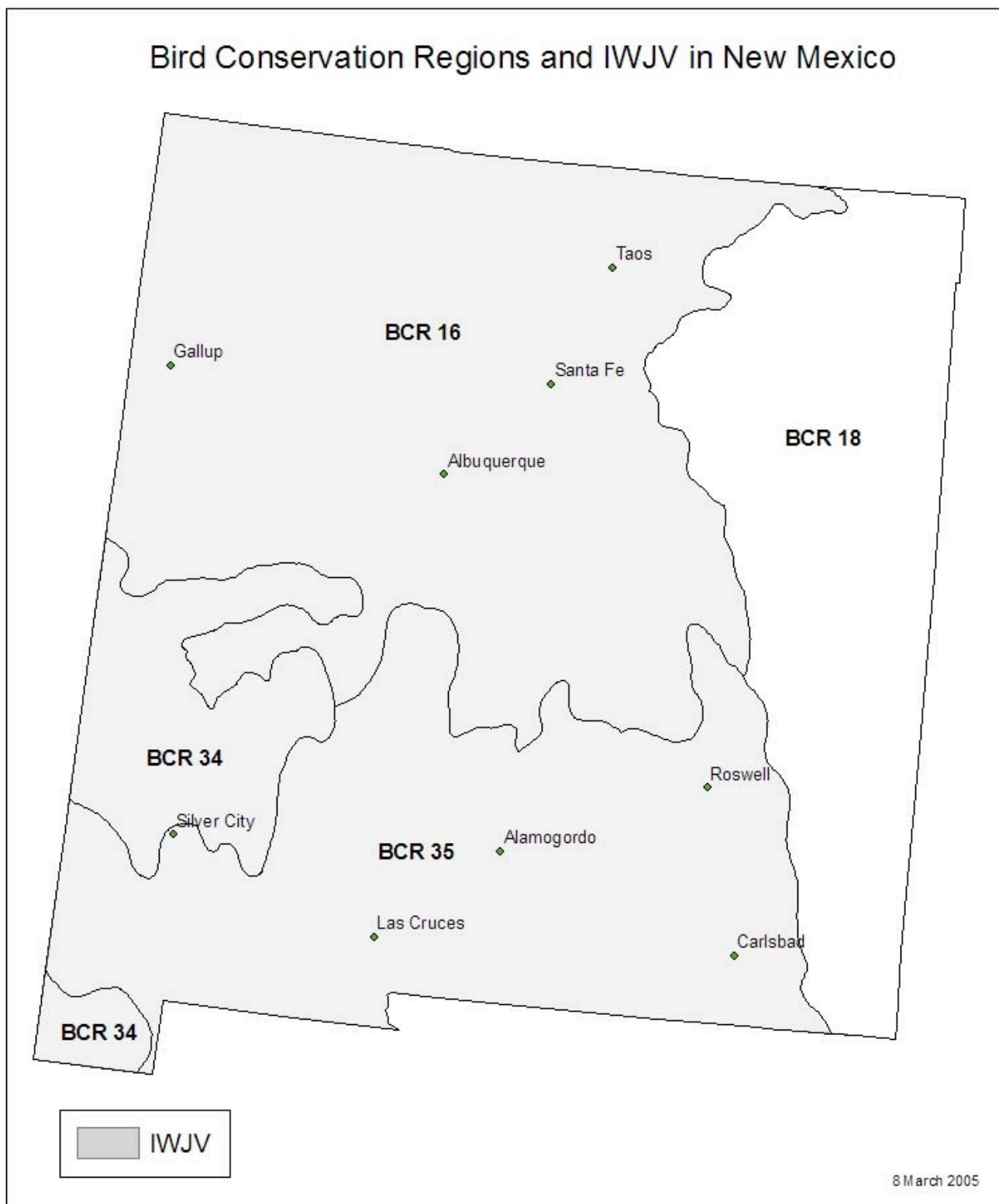
International Association of Fish and Wildlife Agencies: The International Association of Fish and Wildlife Agencies (IAFWA) was founded in 1902 as a quasi-governmental organization of public agencies, including state wildlife agencies, charged with the protection and management of North America’s fish and wildlife resources. IAFWA received federal grants to conduct “integrated all bird conservation” planning workshops for state wildlife agencies in FY/2001-2003. Since the national objectives of this grant closely parallel the IWJV’s coordinated migratory bird planning effort, the IWJV is working with IAFWA staff to ensure that the workshops are complementary.

Congress: The US Congress strongly supports a public-private partnership approach to protecting and restoring wetlands and other important migratory bird habitats across North America, and they have signaled their support by increasing the federal funds available for migratory bird initiatives. In FY/2001, Congress re-authorized the North American Wetlands Conservation Act (NAWCA) and increased its authorized annual funding level from \$30 million to \$50 million. It was reauthorized again in FY/2002 at \$75 million per year. Appropriations for NAWCA continue to grow since the authorization level was increased. Congress also recommended a phased-in approach to fully funding the 15 habitat and species joint ventures that were in place in FY/2001, making it clear in budget language that Congress regards these joint ventures as a future primary delivery system for all federally-funded migratory bird programs. In its FY/2001 Interior Appropriations language, the House noted that the joint venture program “continues to be one of the greatest successes of the (Fish and Wildlife) Service, with funding leveraged to a greater extent than all other Service programs combined”.

Executive Order 13186 – Protection of Migratory Birds: In January 2001 outgoing President Bill Clinton signed an executive order requiring all federal agencies which might have a measurable negative impact on migratory birds to develop a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service, to promote the recommendations of NAWMP, NABCI and other migratory bird programs, as well as other conservation considerations. The Bureau of Land Management and USDA Forest Service developed a draft MOU with the Fish and Wildlife Service in 2001, which emphasizes a collaborative approach to migratory bird conservation, in cooperation with other agencies and organizations. Because this executive order addresses the integration of bird conservation principles, habitat restoration for migratory birds, and comprehensive planning among various bird conservation programs, these coordinated implementation plans developed by the IWJV should assist these federal agencies with implementation of the MOU. Other federal agencies will presumably also develop MOUs with the Fish and Wildlife Service to implement Executive Order 13186. This presidential Executive Order was reinforced by the Bush Administration on September 12, 2002 when U.S. Fish and Wildlife Service Director Steve Williams issued **Director’s Order No. 146**, which indicates, among other things, that joint ventures should deliver the full spectrum of bird conservation.

Other Mandates and Programs: In 2002, Congress passed a new Neotropical Migratory Bird Conservation Act (H.R.2217), funding the new Act with an initial \$3 million for a matching grants program, which has continued into the FY/2004 Appropriations bill. Congress also created a new State Wildlife Grant program which provides funding to state wildlife agencies for wildlife planning, and conservation. Conservation grants are predicated on development of Comprehensive Wildlife Conservation Strategies, which must be completed by October, 2005. The New Mexico Department of Game and Fish is taking steps to complete this overall plan by the due date in 2005.

Figure 1 – Bird Conservation Regions (BCRs) in New Mexico



4. Migratory Bird Conservation Initiatives

There are four migratory bird initiatives for which national, regional and state plans have been or are being developed. Although the following programs have different but compatible approaches to planning for bird conservation, the goals, objectives, and priorities of each will be considered and incorporated into the IWJV Coordinated Implementation Plan for Bird Conservation in Western New Mexico.

North American Waterfowl Management Plan (NAWMP): Adopted by the United States and Canada in 1986, followed by Mexico in 1994, to address the conservation and restoration of waterfowl, other migratory waterbirds, and the habitats on which they depend. The Plan, as adopted, aims to restore waterfowl populations to 1970-79 levels and establishes specific population objectives for twenty-five species of ducks, five species of geese, plus trumpeter and tundra swans. The Plan was updated in 1998 and 2003.

The Intermountain West Joint Venture is one of fourteen public-private partnerships established to coordinate the implementation of NAWMP and the achievement of population and habitat objectives along flyway lines across North America. Public agencies and conservation groups work as partners through an IWJV State Steering Committee in New Mexico to identify, protect, restore and enhance wetlands and other important habitats for waterfowl and other migratory birds, as well as native non-migratory birds.

The New Mexico Department of Game and Fish prioritized 15 species of waterfowl found in western New Mexico for at least part of their life cycle. These species, grouped into Priority 1, 2, and 3 categories, are listed in **Table One**.

Partners in Flight: The national Partners in Flight (PIF) program began in 1989 as a coordinated effort to document and reverse apparent declines in the populations of neotropical migratory birds, those birds that breed north of Mexico then migrate to Mexico, Central and South America and the Caribbean in the winter months. The National Fish and Wildlife Foundation took the lead in bringing together federal, state, and local government agencies, foundations, conservation groups, industry and the academic community to address the problem of population declines. The reasons are complex, and include loss of breeding habitat due to fragmentation, alteration, urban expansion and natural disasters; loss or alteration of habitat in non-breeding areas and along migratory routes; and brood parasitism. The PIF program was later expanded to include all nongame land birds.

In 2000 the American Bird Conservancy (ABC) published the first comprehensive national plan for the program, entitled ***Partners in Flight: Conservation of the Land Birds of the United States***. This plan summarizes the goals and priorities of the various state Bird Conservation Plans, as well as 93 physiographic areas and seven generalized regions of the continental United States. The plan also encourages better coordination with other initiatives such as the NAWMP, U.S. Shorebird Management Plan, and North American Waterbird Conservation Plan. PIF initially divided New Mexico into six physiographic areas, but for purposes of coordinated bird conservation, these have now been replaced by the BCRs shown in **Figure 1** of this plan. Passage of the Neotropical Migratory Bird Conservation Act in 2001 also provided a new federal funding program and commitment to neotropical migrant species addressed by Partners in Flight. In September, 2003, a new North American Landbird Conservation Plan was released by Partners in Flight.

The New Mexico Working Group of Partners in Flight was formed in 1995 to focus the resources of PIF partners on the improvement of monitoring, research, management and education programs involving native, nongame landbirds and their habitats. The working group includes many of the same agencies,

organizations and people as the IWJV steering committee, but also others, including the New Mexico Department of Game and Fish, New Mexico Natural Heritage Program, New Mexico State Land Office, Hawks Aloft, University of New Mexico, U.S. Fish and Wildlife Service, Bureau of Land Management, USDA Forest Service, Bureau of Reclamation, National Park Service, New Mexico Audubon Council, and the New Mexico State Office of The Nature Conservancy.

In 2000, the New Mexico Working Group released the First Final Draft of the New Mexico Land Bird Conservation Plan (BCP), which assessed the status of New Mexico landbirds in six established physiographic areas and twenty major habitat types. Priority and stewardship species lists were updated in 2004, in Version 2.1 of the plan. The BCP articulates population objectives for the highest priority species, and remains the best summary of species and associated habitat information for neotropical migrant birds and other native landbirds of New Mexico. The BCP is one of the primary sources of information used in developing a coordinated implementation plan for bird conservation in New Mexico for the IWJV.

Priority species identified by New Mexico Partners in Flight are listed in **Table One** of this plan, and associations between priority species and habitat types, taken directly from the New Mexico BCP Version 2.1, are included this plan as **Table Three**. The New Mexico BCP recognizes priority and stewardship species in the following categories:

Level One (27 species): Species of highest conservation concern, in need of immediate conservation action.

Level Two (25 species): Species of moderate or potential conservation concern, as indicated by a high degree of threat or declining trends in the state or region.

State biodiversity (53 species): Species whose distribution is marginal in New Mexico, but which are considered to be of high conservation importance for their contribution to state biodiversity.

Additional stewardship (15 species): Species not otherwise considered priority, but having 10% or more of the breeding population in the state by PIF population estimates.

U.S. Shorebird Conservation Plan: The term shorebird is applied in North America to a large group of birds commonly called sandpipers and plovers but also include oystercatchers, avocets, and stilts. Of 214 species of shorebirds found worldwide, 53 regularly occur in the United States and, although they occur at some time of the year in all 50 states, the biology and ecology of most shorebird species is poorly understood. Technical and regional working groups were convened to address some of the known conservation and research issues for shorebirds and in 2000, the ***U.S. Shorebird Conservation Plan*** was published by the Manomet Center for Conservation Sciences, funded by a grant from the U.S. Fish and Wildlife Service. This national plan provides baseline information on shorebird populations and habitat, and addresses some of the known challenges to shorebird conservation, including low reproductive potential and habitat loss. It also articulates hemispheric and national goals for restoring and stabilizing shorebird populations, especially those known to be in decline. These goals emphasize research, monitoring and cooperative landscape management strategies at the international, national, and regional levels. As with NABCI and the Partners In Flight plan, the U.S. Shorebird Conservation Plan encourages close coordination with other bird conservation initiatives and implementation of shorebird conservation strategies through the Intermountain West Joint Venture and other habitat joint ventures established by the North American Waterfowl Management Plan. The shorebird plan defines Shorebird Planning Regions across North America, which follows the lines of NABCI Bird Conservation Regions. The three BCRs within the IWJV portion of New Mexico are also within the Intermountain West Shorebird Planning Region.

A draft *Intermountain West Regional Shorebird Plan* was also released in 2000. The plan notes that perhaps a million shorebirds breed in the Intermountain West and that millions more migrate through the area each year. The plan recognizes that finding ample high quality fresh water will be the greatest challenge faced by shorebirds in the Intermountain West. The regional plan articulates seven goals and associated objectives and strategies related to habitat management, monitoring and assessment, research, outreach and planning. The planning goal includes objectives to coordinate shorebird planning and projects with other migratory bird initiatives and specifically with the Intermountain West Joint Venture. The Intermountain West plan recognizes ** Key Shorebird Areas in New Mexico, none of which are recognized as Hemispheric Sites by the Western Hemisphere Shorebird Reserve Network (WHSRN). A revised version of the Intermountain West Plan was released in March, 2004. Shorebirds considered a priority in western New Mexico are included in **Table One**.

North American Waterbird Conservation Plan: The *North American Waterbird Conservation Plan* provides a continental framework for conserving and managing colonial nesting waterbirds, including 209 species of seabirds, coastal waterbirds (gulls, terns, pelicans), wading birds (herons, ibises), and marsh birds, such as certain grebes and bitterns. The overall goal of the plan is to ensure that the distribution, diversity and abundance of populations, habitats (breeding, migratory, and non-breeding) and important sites of waterbirds are sustained or restored throughout their ranges in North America. The geographic scope of the plan covers 28 countries, from Canada to Panama, as well as islands and nearshore areas of the Atlantic, Pacific, Gulf of Mexico, and Caribbean Sea. As with NAWMP and Partners in Flight, the waterbird partnership includes federal, state and provincial wildlife agencies, individuals, and nonprofit conservation organizations. Version One of this Plan (2001) emphasizes seabirds and other colonial-nesting waterbirds. It also concentrates on the northern portions of its geographic scope. Version 2 when it is released will include more guidance on conservation of non-colonial waterbirds and more details on the needs and priorities of various regions within the overall.

As with PIF and other migratory bird plans, this plan includes a goal to establish conservation action and exchange information and expertise with other bird conservation initiatives, especially NABCI and the habitat joint ventures such as IWJV established by the North American Waterfowl Management Plan. The plan also calls for establishment of Practical Units for Planning (PUPs) for terrestrial habitats; New Mexico falls within the Intermountain West/Southwest Desert PUP.

Volume One of the North American plan covers 165 species of colonial-nesting birds, as well as three grebes that nest semi-colonially. Volume Two will cover 44 species of marsh birds. In October 2001, a second draft of Volume One was released for review. In this draft plan, the conservation status of all North American waterbird species were evaluated, adapting the protocol from Partners in Flight and U.S. Shorebird Conservation Plan. Under this classification system, a number of species found in New Mexico as breeders or migrants fall into the **Species of Moderate Concern** or **Species of Low Concern** categories for North America, Northern Hemisphere, Western Hemisphere, and Cosmopolitan (world-wide) including the American White Pelican, California Gull, White-faced Ibis, Western Grebe, Clark's Grebe, and Green Heron. A number of other species, including the Great Blue Heron, Double-breasted Cormorant, Forster's Tern, Ring-billed Gull, and Great Egret, are found in New Mexico but classified as **Species Not at Risk** in North America. The status of these species in New Mexico may of course be more or less threatened than their global, hemispheric, or continental status.

In December 2001 the process was initiated for developing a regional waterbird conservation plan for the Intermountain West Practical Planning Unit. A first draft was released in August 2002. When this regional plan is completed, it will articulate conservation and management goals and objectives for waterbirds in western New Mexico and other states of the Intermountain West Joint Venture, as well as

identify and describe habitat types and locations of important waterbird habitat in New Mexico and other Western states. It will hopefully be the primary source of information for waterbird species and habitat objectives for the coordinated migratory bird implementation plan for western New Mexico.

5. Other Bird Conservation Programs

In addition to the four migratory bird initiative described above, there are a number of other important bird conservation programs which will be reviewed, considered and included in a Coordinated Implementation Plan for Bird Conservation for Western New Mexico. These include:

Important Bird Areas (IBA) Program: The IBA Program is an international, site-based approach to bird conservation that began in Europe in the mid-1980s, where BirdLife International sponsored a continent-wide inventory of key sites for birds. The effort spread to the United States; and in the mid-1990s the American Bird Conservancy and National Audubon Society completed a pilot project to identify and describe the Important Bird Areas of Pennsylvania. In the late 1990s the National Audubon Society became the partner designate of BirdLife International for the IBA Program in the United States. As of January 2004, 45 states have state-level IBA programs, including New Mexico and two other states that have published guides to their IBAs.

The IBA program recognizes that there are places on the landscape that provide exceptionally valuable or essential habitat for one or more species of birds, including breeding, wintering or migratory habitat. Identifying, recognizing, monitoring, and stewarding these sites can form the basis of a landscape-level conservation network, not just for birds but for other species of wildlife. The selection process for IBAs examines sites based on the presence, species assemblage, and abundance of birds and the condition and quality of the habitat. Standardized, science-based criteria are used to identify areas as IBA's.

The New Mexico Important Bird Area Program has identified 56 sites statewide and at least 14 study areas, which will be an important component of a coordinated migratory landbird, waterfowl, shorebird and waterbird implementation plan for New Mexico. Monitoring programs for some sites are a goal but there are no current plans to do this. The IBA program will also work with landowners to develop stewardship plans to guide the management of IBAs for the long-term benefit of wildlife. IBA status will also help land management agencies and conservation organizations set conservation priorities and solicit funding and support at the national level for local programs.

The initial review of potential IBA sites was completed in 2001 and provides another important component of the IWJV Coordinated Bird Implementation Plan for Western New Mexico. Many of these sites are included in the list of Bird Habitat Conservation Areas shown in **Table Four**.

Ecoregional Conservation Planning: The Nature Conservancy (TNC) has adopted ecoregion-based planning as the most effective way to achieve its national mission of preserving a diversity of plants, animals, and natural communities. The planning process used by TNC follows a methodology outlined in *Geography of Hope* (2000) that defines a vision of conservation success at an ecoregional scale, and is based on documenting and mapping a list or "portfolio" of biologically outstanding sites that represent a full complement of ecosystems, natural communities, and species characteristics of the ecoregion. This methodology may be used to direct TNC programs and influence other conservation efforts across the United States. The ecoregional plans, or assessments, are based on amended ecoregional units delineated by Bailey et al (1998).

The Nature Conservancy has developed ecoregional conservation plans for the seven ecoregions which cover New Mexico: the Arizona-New Mexico Mountains, Apache Highlands, Southern Rockies, Colorado Plateau, and the western part of the Chihuahuan Desert ecoregions are essentially within the

IWJV. The Southern Shortgrass Prairie and a small part of the Central Shortgrass Prairie ecoregions are within the Playa Lakes Joint Venture.

TNC's ecoregional plans are not specifically bird conservation plans, but they do identify and classify those habitat types, areas, and sites which provide important habitat for birds. Birds identified as conservation targets for the five ecoregions are linked to the portfolio sites in those ecoregional plans. Target Bird Species, listed by The Nature Conservancy for each ecological system group, were obtained from the literature and from interviews with acknowledged experts. These target species are listed in **Table One**, along with priority species from other programs and agencies, as well as in **Appendix A**.

Endangered Species Act: The Federal Endangered Species Act (ESA) of 1973, as amended, mandates the protection of threatened and endangered species of plants and animals and the development of a recovery plan for each species. In New Mexico, there are a number of birds federally listed as Endangered (E), Threatened (T), Proposed Threatened (PT) or Candidate (C) species under the ESA. Endangered species include the Least Tern, Whooping Crane and Piping Plover. Due to their legal status under the ESA, these listed bird species are automatically included in the list of priority bird species for the IWJV in New Mexico, even though independent measures are being taken under the ESA to recover their populations. The U.S Fish and Wildlife Service, Region Two also maintains a regional Birds of Conservation Concern list and an unofficial, county-by-county "species of concern" list, which includes a number of birds that could become Candidate species for ESA listing in the future; these species are also included in **Table One**, the combined list of priority bird species for western New Mexico.

6. Priority Bird Species in New Mexico

Many of the bird conservation programs described above including the federal Endangered Species Act and the North American Waterfowl Management Plan/IWJV have developed or will develop, as part of their overall planning process, a list of priority bird species, species of concern, or target species, either for New Mexico or the entire Intermountain West region. The New Mexico Steering Committee has reviewed these lists, including target bird species in TNC's Ecoregional Conservation Plans, and have combined and indexed these priority species as **Table One**.

7. Priority Habitat Types

The New Mexico IWJV Steering Committee met in November 2002 in Albuquerque and prioritized species and habitat types for western New Mexico, using habitat types described in the New Mexico Partners in Flight Bird Conservation Plan (BCP), Version 2.1 (2004). Ranking of habitats was based on three criteria: 1) Statewide importance to birds; 2) Degree of threat and 3) Opportunities (funding, partnerships, and feasibility for habitat protection, restoration and enhancement). The three categories were defined as:

Priority A: High overall rating: incorporating habitat value, threats, and/or opportunity for birds

Priority B: Moderate overall rating: incorporating habitat value, threats, and/or opportunity for birds

Priority C: Relatively low overall rating: incorporating habitat value, threats, and/or opportunity for birds

The ranked list of habitat types developed by the New Mexico Steering Committee is shown as **Table Two**.

8. Priority Species-Habitat Relationships

Table Three is a matrix, adapted from the 2004 *New Mexico Bird Conservation Plan Version 2.1* which keys the priority species in New Mexico to the 20 habitat types defined in that plan.

9. Bird Habitat Conservation Areas / Functional Landscape Sites

The New Mexico Steering Committee met twice in Albuquerque in 2003. Using maps, they defined and delineated 20 Bird Habitat Conservation Areas (BHCA) in the IWJV portion of New Mexico that are of particular importance to birds in each of the four migratory bird plans.

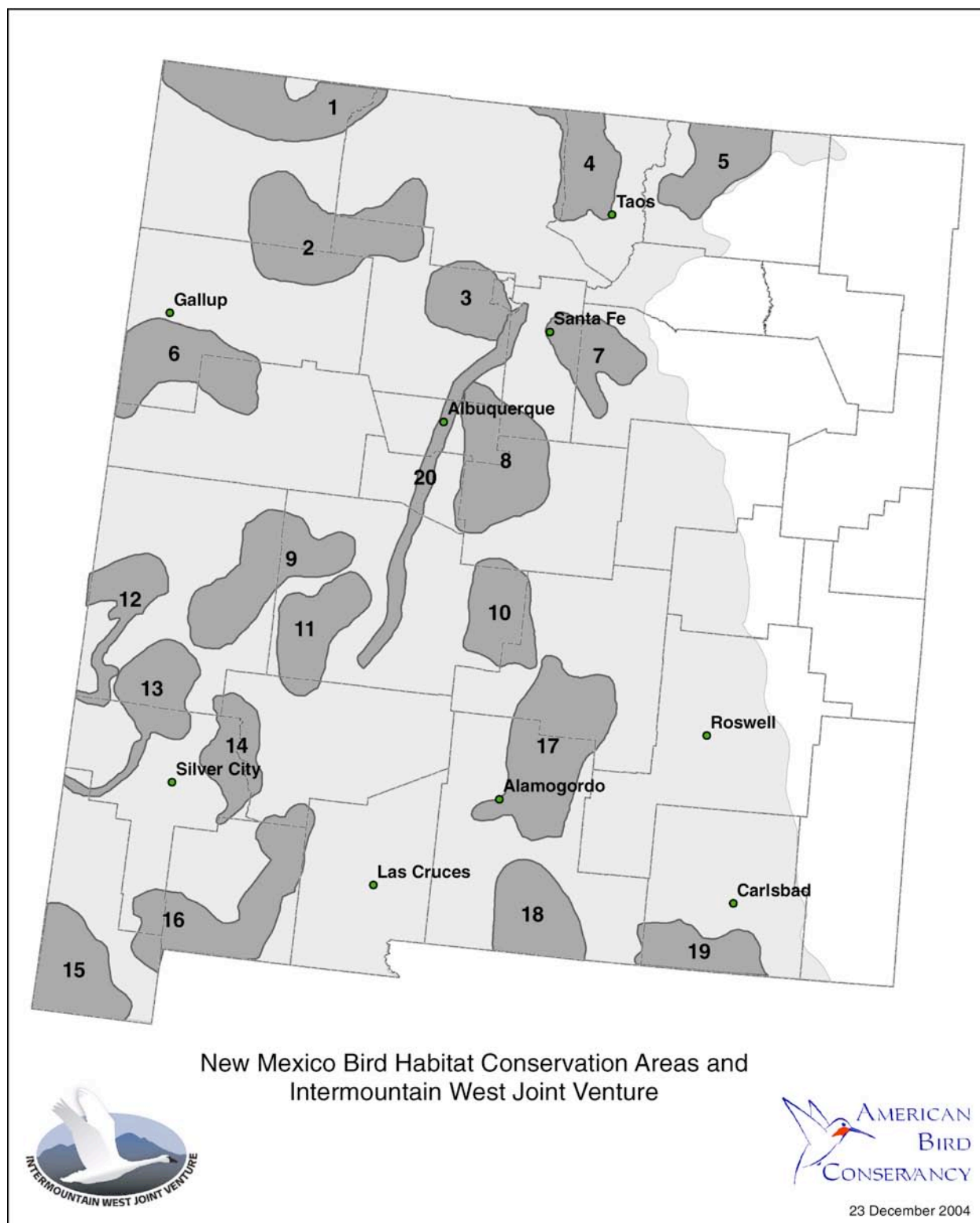
The Steering Committee used similar criteria as they did in ranking habitat types: 1) the importance of the area for priority birds and habitats, 2) the presence of significant threats, and 3) available conservation opportunities. These priority Bird Habitat Conservation Areas are listed as **Table Four**, and described in more detail in **Appendix B**.

It must be understood that Bird Habitat Conservation Areas are intended to display areas where bird habitat conservation projects may take place, where state partners believe the best opportunity exists for effective conservation activities. However, the BHCAs have no official status. In the case of all of these units (private or public) BHCA designation simply notes where conservation activities could occur. Such action would, of course, be predicated on concurrence, collaboration and cooperation with all landowners involved.

10. Landscape Mapping

A digital map (**Figure 2**) has been produced depicting those Bird Habitat Conservation Areas as delineated by the New Mexico Steering Committee and these areas are also listed in **Table Four**.

Figure 2 - Bird Habitat Conservation Areas in western New Mexico



11. Habitat Conservation Goals and Objectives

In August, 2004, IWJV Steering Committee chairs from 11 Western states met with IWJV staff in Salt Lake City for two days to develop draft goals and objectives for the Priority A and B habitats listed in each state plan. Criteria were agreed upon for goals and objectives and each steering committee chair was asked to meet with his/her state steering committee by October, 2004 for finalize these goals and objectives. The habitat goals and objectives for western New Mexico are as follows:

Chihuahuan Desert Grassland (CDG)

- Statewide Goal: Manage CDG habitat to minimize shrub encroachment and maintain large, unfragmented stands of relatively pure desert grassland wherever possible.
- Focus Areas: BHCA's 15, 16, 18 and 19.
- BHCA Objectives:
1. Seek to apply NMPIF management recommendations for CDG habitat and priority species wherever possible, through agency management and conservation partnership strategies.
 2. Maintain or improve existing conditions on 1,320,000 acres of CDG habitat in conservation focus areas.

Great Basin Desert Shrub (GBS)

- Statewide Goal: Maintain existing Great Basin Desert Shrub habitat quality and area in New Mexico.
- Focus Areas: BHCA's 1, 2 and 4.
- BHCA Objectives:
1. Seek to apply NMPIF management recommendations for GBS habitat and priority species wherever possible, through agency management and conservation partnership strategies.
 2. Maintain or improve existing conditions on 480,000 acres of GBS habitat in conservation focus areas.

Madrean Pine Oak Woodland (MPO)

- Statewide Goal: Maintain and protect all existing MPO habitat in New Mexico, and improve habitat quality through appropriate grazing and fire management.
- Focus Area: BHCA 15
- BHCA Objectives:
1. Seek to apply NMPIF management recommendations for MPO habitat and priority species wherever possible, through agency management and conservation partnership strategies.
 2. Maintain or improve 168,000 acres of Madrean Pine Oak habitat in the single conservation focus area where this habitat type occurs.

Pinyon-Juniper Woodland (PJW)

Statewide Goal: Maintain large areas of PJW habitat where it occurs throughout the state, including different successional stages, and minimize further losses due to drought-related die-offs and development.

Focus Areas: BHCAs 1, 2, 4, 6, 7, 8, 9, 10 and 19

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for PJW priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain or improve 800,000 acres of PJW habitat in conservation focus areas.

Ponderosa Pine Forest (PPF)

Statewide Goal: Maintain healthy PPF habitat where it occurs across the state and pursue habitat restoration where PPF has been degraded by past land use and fire management practices.

Focus Areas: BHCAs 3, 5-9, 11-14, 17 and 19

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for PPF priority species wherever possible through agency management and conservation partnership strategies.
2. Maintain or improve existing conditions on 3,400,000 acres of PPF habitat in conservation focus areas.

Southwest Riparian (SWR)

Statewide Goal: No net loss of SWR habitat in New Mexico. Secure protections for existing SWR habitat wherever possible. Manage and restore SWR habitat that has been degraded by past land and water management practices.

Focus Areas: BHCAs 12-15

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for SWR habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain a natural flood regime along the Gila River.
3. Maintain or improve ALL existing SWR habitat in conservation focus areas.*

Middle Elevation Riparian (MER)

Statewide Goal: No net loss of MER habitat in New Mexico. Secure protections for existing MER habitat wherever possible. Manage and restore MER habitat that has been degraded by past land and water management practices.

Focus Areas: BHCAs 1, 2, 5, 6, 19 and 20

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for MER habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Carry out habitat restoration on a broad scale along the Middle Rio Grande.
3. Maintain or improve ALL existing MER habitat in conservation focus areas.*

Emergent Lakes and Wetlands (WET)

Statewide Goal: No net loss of healthy WET habitat in New Mexico. Secure enhanced protections for existing WET habitat wherever possible. Manage for a diversity of species including shorebirds, water birds, and waterfowl, as appropriate to each location.

Focus Areas: 1, 6, 17, 20

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for WET habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain or improve ALL existing WET habitat in conservation focus areas.*

Plains Mesa Grassland (PMG)

Statewide Goal: Manage PMG habitat in New Mexico to minimize shrub encroachment and maintain large blocks of healthy and un-fragmented grassland wherever possible.

Focus Areas: BHCAs 2, 9 and 10.

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for CDG habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain or improve existing conditions on 2 million acres of PMG habitat in conservation focus areas.

Wet Meadow and Montane Grassland (WMG)

Statewide Goal: Protect and manage all existing high-quality WMG habitat in New Mexico. Seek to minimize habitat loss to agricultural conversion or development.

Focus Areas: BHCAs 3, 5, 11-14, 17

BHCA Objectives: 1. Seek to apply NMPIF management recommendations for WMG habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain or improve existing conditions on 137,000 acres of WMG habitat in conservation focus areas.

Chihuahuan Desert Shrub (CDS)

- Statewide Goal: Manage to improve the quality of CDS habitat and maintain existing areas of high-quality habitat.
- Focus Areas: BHCAs 15, 16, 18 and 19.
- BHCA Objectives: 1. Seek to apply NMPIF management recommendations for CDS habitat and priority species wherever possible, through agency management and conservation partnership strategies.
2. Maintain or improve existing conditions on 1,400,000 acres of CDS habitat in conservation focus areas.

Mixed Conifer Forest (MCF)

- Statewide Goal: Maintain healthy MCF habitat where it occurs across the state including aspen-dominated successional stages. Pursue habitat restoration where MCF has been degraded by past land use and fire management practices.
- Focus Areas: BHCAs 3, 5, 7, 8, 11-14, and 17
- BHCA Objectives: 1. Seek to apply NMPIF management recommendations for MCF habitat and priority species wherever possible through agency management and conservation partnership strategies.
2. Maintain or improve existing conditions on 1,040,000 acres of MCF habitat in conservation focus areas.

Agricultural Lands

- Statewide Goal: Maintain agricultural lands with attributes of value to priority species and other migratory species.
- Focus Areas: BHCAs 8 and 20.
- BHCA Objectives: 1. Seek to apply NMPIF management recommendations for MCF habitat and priority species wherever possible through agency management and conservation partnership strategies.

Montane Riparian (MOR)

- Statewide Goal: Maintain existing MOR habitat in New Mexico. Restore MOR habitat that has been degraded by past land and water management practices.
- Focus Areas: BHCAs 3, 5, 6, 7, 12, 13, 14, 17
- BHCA Objectives: 1. Seek to apply NMPIF management recommendations for MOR habitat and priority species wherever possible through agency management and conservation partnership strategies.
2. Maintain or improve ALL existing MOR habitat in conservation focus areas.*

TABLE ONE - Priority Species from Bird Conservation Programs

**North American Waterfowl Management Plan (NAWMP) and the
Intermountain West Joint Venture (15 species/subspecies in W. NM)**
(List from NMGF, Partners in Flight and TNC)

Cinnamon Teal	Redhead	Green-winged Teal
Mallard	Northern Pintail	Canvasback
Lesser Scaup	Blue-winged Teal	American Wigeon
Ross' Goose	Canada Goose	Snow Goose
Common Goldeneye	Barrow's Goldeneye	Bufflehead

NM Partners in Flight Bird Conservation Plan (BCP) (v.2.1, 2004)
(Level 1-2, State Species of Concern (S-1-2), Stewardship Species (ST))

Ferruginous Hawk	Snowy Plover	Mountain Plover
Long-billed Curlew	Flammulated Owl	Elf Owl
Mexican Spotted Owl	Lewis' Woodpecker	Williamson's Sapsucker
SW Willow Flycatcher	Bell's Vireo	Gray Vireo
Pinyon Jay	Juniper Titmouse	Bendire's Thrasher
Crissal Thrasher	Virginia's Warbler	Lucy's Warbler
Black-throated Gray Warbler	Grace's Warbler	Red-faced Warbler
Black-chinned Sparrow	Sage Sparrow	Lazuli Bunting
Grasshopper Sparrow	Sprague's Pipit	McCown's Longspur
Eared Grebe	Clark's Grebe	Prairie Falcon
Blue Grouse	Scaled Quail	Band-tailed Pigeon
Northern Pygmy Owl	Whip-poor-will	White-throated Swift
Red-headed Woodpecker	Red-naped Sapsucker	Hammond's Flycatcher
Say's Phoebe	Loggerhead Shrike	Warbling Vireo
Western Scrub Jay	Violet-green Swallow	Pygmy Nuthatch
Mountain Bluebird	Sage Thrasher	Painted Redstart
Vesper Sparrow	Black-throated Sparrow	Hooded Oriole
Bullock's Oriole	American Bittern	Common Black-hawk
Aplomado Falcon	Peregrine Falcon	White-tailed Ptarmigan
Common Ground-dove	Yellow-billed Cuckoo	Black Swift
Violet-crowned Hummingbird	Lucifer Hummingbird	Elegant Trogon
Northern Beardless-tyrannulet	Thick-billed Kingbird	Bank Swallow
Veery	Abert's Towhee	Yellow-eyed Junco
Painted Bunting	Bobolink	Western Grebe
Least Bittern	Neotropic Cormorant	Double-crested Cormorant
Snowy Egret	Green Heron	White-faced Ibis
Bald Eagle	Northern Harrier	Northern Goshawk
Wilson's Phalarope	Least Tern	Whiskered Screech Owl
Broad-billed Hummingbird	Magnificent Hummingbird	Costa's Hummingbird
Belted Kingfisher	Gila Woodpecker	Arizona Woodpecker
Olive-sided Flycatcher	Greater Peewee	Mexican Jay
Mexican Chickadee	Bridled Titmouse	Marsh Wren
Olive Warbler	Wilson's Warbler	Lincoln's Sparrow
Varied Bunting	Dickeissel	

U.S. Shorebird Conservation Plan

Intermountain West Regional Shorebird Plan and Partners in Flight (12 species)

Long-billed Curlew	Snowy Plover	Stilt Sandpiper
Mountain Plover	Long-billed Dowitcher	American Avocet
Wilson's Phalarope	Killdeer	Black-necked Stilt
Willet	Spotted Sandpiper	Common Snipe

North American Waterbird Conservation Plan

(Compilation of High and Moderate Concern from National and Regional Plans)

American White Pelican	California Gull	Western Grebe
Eared Grebe	Neotropic Cormorant	American Bittern
Franklin's Gull	Black-crowned Night Heron	Black Tern
Least Tern	Forster's Tern	Snowy Egret
Great Egret	Greater Sandhill Crane	

Arizona-New Mexico Mountains Ecoregional Conservation Plan (TNC)

(21 target bird species in western NM)

Mountain Plover	SW Willow Flycatcher	Whip-poor-will
American Dipper	Cave Swallow	Pine Grosbeak
Northern Goshawk	Mexican Spotted Owl	Red-faced Warbler
W. YB Cuckoo	Band-tailed Pigeon	Olive-sided Flycatcher
Grace's Warbler	Hammond's Flycatcher	Gray Flycatcher
American Peregrine Falcon	Bald Eagle	MacGillivray's Warbler
Flammulated Owl	Bell's Vireo	Gray Vireo

Colorado Plateau Ecoregional Conservation Plan (TNC)

(14 target bird species in western NM)

Ferruginous Hawk	W. Yellow-billed Cuckoo	SW Willow Flycatcher
Peregrine Falcon	California Condor	Bald Eagle
Lewis's Woodpecker	Three-toed Woodpecker	Williamson's Sapsucker
Mexican Spotted Owl	Bendire's Thrasher	Lucy's Warbler
Virginia's Warbler	Gray Vireo	

Southern Rocky Mountains Ecoregional Conservation Plan (TNC)

(21 target bird species in western NM)

Bufflehead	Barrow's Goldeneye	Zone-tailed Hawk
Ferruginous Hawk	Swainson's Hawk	Bald Eagle
American Peregrine Falcon	Sage Grouse	Sandhill Crane
Mountain Plover	Short-eared Owl	Mexican Spotted Owl
Black Swift	SW Willow Flycatcher	Purple Martin
American Dipper	Sage Sparrow	Lazuli Bunting
Brewer's Sparrow	Virginia's Warbler	Brown-capped Rosy Finch

Federal Endangered Species Act (ESA) (8 species)

(From USFWS for New Mexico)

Least Tern (E)	Whooping Crane (E)	N. Aplomado Falcon (E)
SW Willow Flycatcher (E)	Piping Plover (E)	Bald Eagle (T)
Mexican Spotted Owl (T)	Yellow-billed Cuckoo (C)	

Species of Conservation Concern – USFWS (43 species)

(For BCRs 16, 34 and 35)

Northern Harrier	Swainson's Hawk	Ferruginous Hawk
Golden Eagle	Peregrine Falcon	Prairie Falcon
Snowy Plover	Mountain Plover	Solitary Sandpiper
Marbled Godwit	Wilson's Phalarope	Yellow-billed Cuckoo
Flammulated Owl	Buff-breasted Flycatcher	Short-eared Owl
Black Swift	Lewis's Woodpecker	Williamson's Sapsucker
Gray Vireo	Pinyon Jay	Juniper Titmouse
Bendire's Thrasher	Crissal Thrasher	Sprague's Pipit
Virginia's Warbler	Black-throated Gray Warbler	Grace's Warbler
Sage Sparrow	Chestnut-collared Longspur	Black-chinned Sparrow
Burrowing Owl	Bell's Vireo	Red-faced Warbler
Northern Goshawk	Gray Hawk	Common Black-hawk
Loggerhead Shrike	Whiskered Screech Owl	Broad-billed Hummingbird
Lucifer Hummingbird	Arizona Woodpecker	Northern Beardless-tyrannulet
Greater Peewee		

State of New Mexico Endangered and Threatened Species List

(From New Mexico Department of Game and Fish - 2000)

Brown Pelican (E)	Lucifer Hummingbird (T)	Bald Eagle (T)
White-tailed Ptarmigan (E)	Gila Woodpecker (T)	Peregrine Falcon (T)
Piping Plover (E)	Bell's Vireo (T)	Whiskered Screech Owl (T)
Common Ground-dove (E)	Abert's Towhee (T)	Broad-billed Hummingbird (T)
Elegant Trogon (E)	Baird's Sparrow (T)	Violet-crowned Hummingbird (T)
SW Willow Flycatcher (E)	Aplomado Falcon (E)	Costa's Hummingbird (T)
Neotropic Cormorant (T)	Whooping Crane (E)	Varied Bunting (T)
Common Black-hawk (T)	Least Tern (E)	Gray Vireo (T)
Wild Turkey (Gould's) (T)	Buff-colored Night Jar (E)	Arizona Grasshopper Sparrow (T)
Boreal Owl (T)	Northern Beardless-tyrannulet (E)	Yellow-eyed Junco (T)
White-eared Hummingbird (T)	Thick-billed Kingbird (E)	

TABLE TWO

Prioritization of 21 Major Bird Habitats in Western New Mexico

Priority A Habitats

High overall rating: high to medium value to birds, high to medium threat, high to medium opportunity for protection, restoration, and or enhancement of habitat.

Chihuahuan Desert Grasslands	Emergent Wetlands
Southwestern Riparian	Pinyon-Juniper Woodland
Middle Elevation Riparian	Madrean Pine-Oak Woodland
Mixed Conifer Forest / Aspen	Ponderosa Pine Forest
Great Basin Desert Shrub	

Priority B Habitats

Medium overall rating: one criterion may be high (habitat value, threat, opportunity) but generally of medium importance to birds statewide.

Chihuahuan Desert Shrub	Agricultural Lands
Plains Mesa Grassland	Montane Riparian
Meadow / Montane Grassland	

Priority C Habitats

Low overall rating: low to medium relative habitat value, threat, and/or opportunity statewide.

Montane Shrub	Cliff / Cave Rock
Spruce-Fir Forest	Urban
Plains-Mesa Sand Shrub	
Alpine Tundra	

* Original source of information (modified here): Partners in Flight *New Mexico Bird Conservation Plan* (2004)

TABLE THREE

Priority Bird Species by Priority Habitat Type

Priority A Habitats

Chihuahuan Desert Grasslands

Level I:	Mountain Plover, Grasshopper Sparrow (ammolegus ssp.)
Level II:	Scaled Quail, Say's Phoebe, Loggerhead Shrike
State:	Northern Harrier, Aplomado Falcon, Botteri's Sparrow, Grasshopper Sparrow
Additional Stewardship:	Swainson's Hawk, Chihuahuan Raven, Cassin's Sparrow

Great Basin Desert Shrub

Level I:	Ferruginous Hawk, Gray Vireo, Bendire's Thrasher, Sage Sparrow
Level II:	Scaled Quail, Say's Phoebe, Loggerhead Shrike, Mountain Bluebird, Sage Thrasher, Vesper Sparrow, Black-throated Sparrow
State:	
Additional Stewardship:	Swainson's Hawk, Common Nighthawk, Ash-throated Flycatcher

Madrean Pine-Oak Woodlands

Level I:	Montezuma Quail, Flammulated Owl, Elf Owl, Spotted Owl, Juniper Titmouse, Virginia's Warbler, Black-throated Gray Warbler, Grace's Warbler
Level II:	Band-tailed Pigeon, Northern Pygmy-owl, Whip-poor-will, Western Scrub-jay, Pygmy Nuthatch, Painted Redstart
State:	Northern Goshawk, Whiskered Screech-owl, Magnificent Hummingbird, Arizona Woodpecker, Mexican Jay, Mexican Chickadee, Bridled Titmouse
Additional Stewardship:	Western Screech-owl, Ash-throated Flycatcher, Cassin's Kingbird, Plumbeous Vireo, Western Bluebird, Hepatic Tanager

Pinyon-Juniper Woodlands

Level I:	Ferruginous Hawk, Montezuma Quail, Gray Vireo, Pinyon Jay, Juniper Titmouse, Bendire's Thrasher, Crissal Thrasher, Virginia's Warbler, Black-throated Gray Warbler, Black-chinned Sparrow
Level II:	Say's Phoebe, Loggerhead Shrike, Western Scrub-jay, Mountain Bluebird, Vesper Sparrow
State:	Bridled Titmouse
Additional Stewardship:	Western Screech-owl, Common Nighthawk, Broad-tailed Hummingbird, Ash-throated Flycatcher, Cassin's Kingbird, Plumbeous Vireo, Western Bluebird, Hepatic Tanager, Scott's Oriole

Ponderosa Pine Forest

Level I:	Montezuma Quail, Flammulated Owl, Mexican Spotted Owl, Lewis's Woodpecker, Williamson's Sapsucker, Virginia's Warbler, Grace's Warbler, Red-faced Warbler
Level II:	Blue Grouse, Band-tailed Pigeon, Northern Pygmy-owl, Whip-poor-will, Red-naped Sapsucker, Hammond's Flycatcher, Warbling Vireo, Violet-green Swallow, Pygmy Nuthatch
State:	Northern Goshawk, Peregrine Falcon, Magnificent Hummingbird, Olive-sided Flycatcher, Greater Pewee, Mexican Chickadee, Olive Warbler, Yellow-eyed Junco
Additional Stewardship:	Western Screech-owl, Common Nighthawk, Broad-tailed Hummingbird, Cordilleran Flycatcher, Ash-throated Flycatcher, Cassin's Kingbird, Plumbeous Vireo, Western Bluebird, Hepatic Tanager

Southwestern Riparian

Level I:	Elf Owl, Southwestern Willow Flycatcher, Bell's Vireo, Crissal Thrasher, Lucy's Warbler
Level II:	Violet-green Swallow, Painted Redstart, Hooded Oriole, Bullock's Oriole
State:	Bald Eagle, Common Black-hawk, Common Ground-Dove, Yellow-billed Cuckoo, Whiskered Screech-owl, Broad-billed Hummingbird, Violet-crowned Hummingbird, Magnificent Hummingbird, Costa's Hummingbird, Elegant Trogon, Belted Kingfisher, Gila Woodpecker, Northern Beardless-tyrannulet, Thick-billed Kingbird, Mexican Jay, Bridled Titmouse, Abert's Towhee, Varied Bunting
Additional Stewardship:	Western Screech-Owl, Black-chinned Hummingbird, Ash-throated Flycatcher, Cassin's Kingbird, Plumbeous Vireo

Middle-elevation Riparian

Level I:	Lewis's Woodpecker, Southwestern Willow Flycatcher, Bell's Vireo, Crissal Thrasher, Lucy's Warbler, Lazuli Bunting
Level II:	Red-headed Woodpecker, Warbling Vireo, Violet-green Swallow, Hooded Oriole, Bullock's Oriole
State:	Neotropic Cormorant, Double-crested Cormorant, Snowy Egret, Green Heron, Bald Eagle, Common Black-hawk, Yellow-billed Cuckoo, Belted Kingfisher, Bank Swallow
Additional Stewardship:	Western Screech-Owl, Black-chinned Hummingbird, Ash-throated Flycatcher, Cassin's Kingbird

Emergent Wetlands

Level I:	Snowy Plover
Level II:	Eared Grebe, Clark's Grebe
State:	Western Grebe, Neotropic Cormorant, Double-crested Cormorant, American Bittern, Least Bittern, Snowy Egret, Green Heron, White-faced Ibis, Wilson's Phalarope, Bald Eagle, Northern Harrier, Peregrine Falcon, Belted Kingfisher, Marsh Wren
Additional Stewardship:	Common Nighthawk

Priority B Habitats

Plains Mesa Grassland

Level I:	Mountain Plover, Long-billed Curlew, Ferruginous Hawk, Bendire's Thrasher
Level II:	Scaled Quail, Say's Phoebe, Loggerhead Shrike, Vesper Sparrow
State:	Northern Harrier, Grasshopper Sparrow
Additional Stewardship:	Swainson's Hawk, Chihuahuan Raven, Cassin's Sparrow

Wet Meadow / Montane Grassland

Level II:	Mountain Bluebird
State:	Wilson's Phalarope, Lincoln's Sparrow, Bobolink
Additional Stewardship:	Broad-tailed Hummingbird

Chihuahuan Desert Shrub

Level I:	Bell's Vireo, Gray Vireo, Bendire's Thrasher, Crissal Thrasher
Level II:	Scaled Quail, Loggerhead Shrike, Black-throated Sparrow, Hooded Oriole, Bullock's Oriole
State:	Northern Harrier, Common Ground-dove, Lucifer Hummingbird, Costa's Hummingbird, Varied Bunting
Additional Stewardship:	Swainson's Hawk, Common Nighthawk, Ash-throated Flycatcher, Chihuahuan Raven, Cassin's Sparrow, Scott's Oriole

Mixed Conifer Forest

Level:	Flammulated Owl, Mexican Spotted Owl, Williamson's Sapsucker, Virginia's Warbler, Grace's Warbler, Red-faced Warbler
Level II:	Blue Grouse, Band-tailed Pigeon, Northern Pygmy-owl, Whip-poor-will, Red-naped Sapsucker, Hammond's Flycatcher, Warbling Vireo, Violet-green Swallow, Painted Redstart
State:	Northern Goshawk, Peregrine Falcon, Magnificent Hummingbird, Olive-sided Flycatcher, Greater Pewee, Mexican Chickadee, Olive Warbler, Yellow-eyed Junco
Additional Stewardship:	Broad-tailed Hummingbird, Cordilleran Flycatcher, Plumbeous Vireo

Montane Riparian

Level I:	Mexican Spotted Owl, Lewis's Woodpecker, Southwest Willow Flycatcher, Red-faced Warbler
Level II:	Red-naped Sapsucker, Hammond's Flycatcher, Warbling Vireo, Violet-green Swallow, Mountain Bluebird, Painted Redstart
State:	Black Swift, Belted Kingfisher, Veery, Wilson's Warbler, Lincoln's Warbler
Additional Stewardship:	Broad-tailed Hummingbird, Cordilleran Flycatcher, Plumbeous Vireo, Western Bluebird

Agricultural Lands

Level I:	Ferruginous Hawk, Lewis's Woodpecker
Level II:	Scaled Quail, Loggerhead Shrike, Say's Phoebe, Bullock's Oriole
State:	Common Ground-dove, Yellow-billed Cuckoo, Bobolink, Grasshopper Sparrow
Additional Stewardship:	Swainson's Hawk, Western Screech-owl, Common Nighthawk, Cassin's Kingbird

TABLE FOUR

Bird Habitat Conservation Areas in Western New Mexico

1. San Juan River and Four Corners
2. Bisti-Chaco Badlands
3. Jemez Mountains
4. Tres Piedras / North Central Plateau
5. Vermejo and Philmont
6. Zuni Mountains and Plateau
7. Southern Sangre de Cristos and Glorietta Mesa
8. Sandia and Manzano Mountains and Estancia Valley
9. Datil and Gallinas Mountains, Plains of San Augustin
10. Chupadera Mesa
11. San Mateo Mountains and Magdalena Mountains
12. San Francisco River Watershed
13. Mogollon Mountains and Gila River
14. Black Range and Mimbres River
15. Animas and Peloncillo Mountains and the Animas Valley
16. Luna County Grasslands
17. Sacramento Mountains and Drainages
18. Otero Mesa
19. Southern Guadalupe Mountains, Carlsbad Caverns and the Black River
20. The Middle Rio Grande

APPENDIX A – PRIORITY SPECIES FROM BIRD CONSERVATION PROGRAMS IN NEW MEXICO

Species	North American Waterfowl Mgmt Plan (NAWMP) and IWJV	New Mexico PIF Bird Conservation Plan (BCP)	US Shorebird Conservation Plan and Intermountain West Regional Shorebird Plan	North American Waterbird Conservation Plan	AZ – NM Mountains Ecoregional Conservation Plan	CO Plateau Ecoregional Conservation Plan (TNC)	Southern Rocky Mountain Ecoregional Conservation Plan (TNC)	Federal Endangered Species Act (ESA)	Species of Conservation Concern – USFWS	State of NM Endangered and Threatened Species List
Abert's Towhee		X								X
American Avocet			X							
American Bittern		X		X						
American Dipper					X		X			
American White Pelican				X						
American Wigeon	X									
Aplomado Falcon		X						X		X
Arizona Woodpecker		X							X	
Baird's Sparrow										X
Bald Eagle		X			X	X	X	X		X
Bank Swallow		X								
Band-tailed Pigeon		X			X					
Barrow's Goldeneye	X						X			
Bell's Vireo		X			X				X	X
Belted Kingfisher		X								
Bendire's Thrasher		X				X			X	
Black Swift		X					X		X	
Black Tern				X						
Black-chinned Sparrow		X							X	
Black-crowned Night-Heron			X							
Black-necked Stilt			X							
Black-throated Gray Warbler		X							X	
Black-throated Sparrow		X								
Blue Grouse		X								
Blue-winged Teal	X									
Bobolink		X								
Boreal Owl										X
Brewer's Sparrow							X			
Bridled Titmouse		X								

COORDINATED IMPLEMENTATION PLAN FOR BIRD CONSERVATION IN WESTERN NEW MEXICO

Species	North American Waterfowl Mgmt Plan (NAWMP) and IWJV	New Mexico PIF Bird Conservation Plan (BCP)	US Shorebird Conservation Plan and Intermountain West Regional Shorebird Plan	North American Waterbird Conservation Plan	AZ – NM Mountains Ecoregional Conservation Plan	CO Plateau Ecoregional Conservation Plan (TNC)	Southern Rocky Mountain Ecoregional Conservation Plan (TNC)	Federal Endangered Species Act (ESA)	Species of Conservation Concern – USFWS	State of NM Endangered and Threatened Species List
Broad-billed Hummingbird		X							X	X
Brown Pelican										X
Brown-capped Rosy Finch							X			
Bufflehead	X						X			
Buff-breasted Flycatcher									X	
Buff-collared Nightjar										X
Bullock's Oriole		X								
Burrowing Owl									x	
California Condor						X				
California Gull				X						
Canada Goose	X									
Canvasback	X									
Cave Swallow					X					
Chestnut-collared Longspur									X	
Cinnamon Teal	X									
Clark's Grebe		X								
Common Black-hawk		X							X	X
Common Goldeneye	X									
Common Ground-dove		X								X
Common Snipe			X							
Costa's Hummingbird		X								X
Crissal Thrasher		X							X	
Dickcissel		X								
Double-crested Cormorant		X								
Eared Grebe		X		X						
Elegant Trogon		X								X
Elf Owl		X								
Ferruginous Hawk		X				X	X		X	
Flammulated Owl		X			X				X	
Forster's Tern				X						
Franklin's Gull				X						
Gila Woodpecker		X								X
Golden Eagle									X	

COORDINATED IMPLEMENTATION PLAN FOR BIRD CONSERVATION IN WESTERN NEW MEXICO

Species	North American Waterfowl Mgmt Plan (NAWMP) and IWJV	New Mexico PIF Bird Conservation Plan (BCP)	US Shorebird Conservation Plan and Intermountain West Regional Shorebird Plan	North American Waterbird Conservation Plan	AZ – NM Mountains Ecoregional Conservation Plan	CO Plateau Ecoregional Conservation Plan (TNC)	Southern Rocky Mountain Ecoregional Conservation Plan (TNC)	Federal Endangered Species Act (ESA)	Species of Conservation Concern – USFWS	State of NM Endangered and Threatened Species List
Gould's Turkey										X
Grace's Warbler		X			X				X	
Grasshopper Sparrow		X	X							X
Gray Flycatcher					X					
Gray Hawk									X	
Gray Vireo		X			X	X			X	X
Great Egret				X						
Greater Peewee		X							X	
Green Heron		X								
Green-winged Teal	X									
Hammond's Flycatcher		X			X					
Juniper Titmouse		X								
Juniper (Plain) Titmouse									X	
Killdeer			X							
Lazuli Bunting		X					X			
Least Bittern		X								
Least Tern		X		X				X		X
Lesser Scaup	X									
Lewis's Woodpecker		X				X			X	
Lincoln's Sparrow		X								
Loggerhead Shrike		X								
Long-billed Curlew		X	X							
Long-billed Dowitcher			X							
Lucifer Hummingbird		X							X	X
Lucy's Warbler		X				X				
MacGillivray's Warbler					X					
Magnificent Hummingbird		X								
Mallard	X									
Marbled Godwit									X	
Marsh Wren		X								
McCown's Longspur		X								
Mexican Chickadee		X								
Mexican Jay		X								

COORDINATED IMPLEMENTATION PLAN FOR BIRD CONSERVATION IN WESTERN NEW MEXICO

Species	North American Waterfowl Mgmt Plan (NAWMP) and IWJV	New Mexico PIF Bird Conservation Plan (BCP)	US Shorebird Conservation Plan and Intermountain West Regional Shorebird Plan	North American Waterbird Conservation Plan	AZ – NM Mountains Ecoregional Conservation Plan	CO Plateau Ecoregional Conservation Plan (TNC)	Southern Rocky Mountain Ecoregional Conservation Plan (TNC)	Federal Endangered Species Act (ESA)	Species of Conservation Concern – USFWS	State of NM Endangered and Threatened Species List
Mexican Spotted Owl		X			X	X	X	X		
Mountain Bluebird		X								
Mountain Plover		X	X		X		X		X	
Neotropic Cormorant		X		X						X
Northern Beardless-tyrannulet		X							X	X
Northern Goshawk		X			X				X	
Northern Harrier		X							X	
Northern Pintail	X									
Northern Pygmy Owl		X								
Olive Warbler		X								
Olive-sided Flycatcher		X			X					
Painted Bunting		X								
Painted Redstart		X								
Peregrine Falcon		X			X	X	X		X	X
Pine Grosbeak					X					
Pinyon Jay		X							X	
Piping Plover								X		X
Prairie Falcon		X							X	
Purple Martin							X			
Pygmy Nuthatch		X								
Redhead	X									
Red-faced Warbler					X				X	
Red-faced Warbler		X								
Red-headed Woodpecker		X								
Red-naped Sapsucker		X								
Ross's Goose	X									
Sage Grouse							X			
Sage Sparrow		X					X		X	
Sage Thrasher		X								
Sandhill Crane				X			X			
Say's Phoebe		X								
Scaled Quail		X								
Short-eared Owl							X		X	

COORDINATED IMPLEMENTATION PLAN FOR BIRD CONSERVATION IN WESTERN NEW MEXICO

Species	North American Waterfowl Mgmt Plan (NAWMP) and IWJV	New Mexico PIF Bird Conservation Plan (BCP)	US Shorebird Conservation Plan and Intermountain West Regional Shorebird Plan	North American Waterbird Conservation Plan	AZ – NM Mountains Ecoregional Conservation Plan	CO Plateau Ecoregional Conservation Plan (TNC)	Southern Rocky Mountain Ecoregional Conservation Plan (TNC)	Federal Endangered Species Act (ESA)	Species of Conservation Concern – USFWS	State of NM Endangered and Threatened Species List
Snow Goose	X									
Snowy Egret		X		X						
Snowy Plover		X	X						X	
Solitary Sandpiper									X	
Southwestern Willow Flycatcher		X			X	X	X	X		X
Spotted Sandpiper			X							
Sprague's Pipit		X							X	
Stilt Sandpiper			X							
Swainson's Hawk							X		X	
Thick-billed Kingbird		X								X
Three-toed Woodpecker						X				
Varied Bunting		X								X
Veery		X								
Vesper Sparrow		X								
Violet-crowned Hummingbird		X								X
Violet-green Swallow		X								
Virginia's Warbler		X				X			X	
Warbling Vireo		X								
Western Grebe		X		X						
Western Scrub-Jay		X								
Western Yellow-billed Cuckoo		X			X	X		X	X	
Whip-poor-will		X			X					
Whiskered Screech Owl		X							X	X
White-eared Hummingbird										X
White-faced Ibis		X								
White-tailed Ptarmigan		X								X
White-throated Swift		X								
Whooping Crane								X		X
Willet			X							
Williamson's Sapsucker		X				X			X	
Wilson's Phalarope		X	X						X	
Wilson's Warbler		X								
Yellow-eyed Junco		X								X

APPENDIX B

New Mexico IWJV Bird Habitat Conservation Area Descriptions

BHCA 1 San Juan River and Four Corners

Location: North San Juan and far northwest Rio Arriba counties; centered around the city of Farmington, the area follows the San Juan River in a wide arc from Navajo Reservoir to the Arizona and Colorado state lines.

Land Management Units and Natural Features:

Mostly BLM lands to the east and tribal lands of the Navajo and Ute Mountain reservations to the west and north. Private lands around the municipalities of Farmington and Aztec. Includes Navajo and Morgan reservoirs, riparian habitat along the San Juan River and its tributaries including the Animas and Chaco rivers, and extensive plateau country containing pinyon juniper and sagebrush habitats.

Priority Habitats:

Great Basin Shrub, Pinyon-Juniper Woodland, Middle Elevation Riparian, Emergent Lakes and Wetlands

Importance to Birds:

- Large areas of Great Basin Shrub habitat.
- Open water, wetland and some excellent riparian habitat around Navajo and Morgan lakes.
- Large winter waterfowl concentrations.
- Highest known concentrations of Gray Vireo in the state.

Selected Priority Species:

Eared Grebe, Double-crested Cormorant, American Bittern, Snowy Egret, White-faced Ibis, Bald Eagle, Long-billed Curlew (migration), Gray Vireo, Pinyon Jay, Western Scrub-jay, Juniper Titmouse, Sage Thrasher, Bendire's Thrasher, Mountain Bluebird, Virginia's Warbler, Sage Sparrow, Vesper Sparrow, Lazuli Bunting, Bullock's Oriole

Threats and Opportunities:

- Extensive and rapidly expanding natural gas development on BLM lands.
- Overgrazing of sagebrush, and sagebrush control.
- Drought-related infestation and die-off of pinyon pine.
- Livestock and exotic species impacts in riparian habitat along the San Juan.
- Potential for conservation partnerships with tribes, BLM, ranchers, Trout Unlimited

BHCA 2 Bisti-Chaco Badlands

Location: Southeast San Juan, southwest Rio Arriba, northwest Sandoval, and north McKinley counties. Extends from the area around Lindreth and Ojito in the east to Chaco Canyon and areas west.

Land Management Units and Natural Features:

Mostly BLM lands and tribal lands of the Navajo and Jicarilla Apache reservations. Includes Chaco Culture National Historical Park, the BLM-administered Bisti, and De-na-zin Wilderness areas. Large, open areas of grassland and sagebrush shrubland.

Priority Habitats:

Great Basin Shrub, Plains-Mesa Grassland, Pinyon-Juniper Woodland

Importance to Birds:

- Large areas of Great Basin Shrub habitat.
- Excellent grassland habitat in the Bisti Wilderness, and Split Lip Flats.
- Fairly large Bendire's Thrasher population.

Selected Priority Species:

Ferruginous Hawk, Scaled Quail, Burrowing Owl, Loggerhead Shrike, Pinyon Jay, Western Scrub-jay, Juniper Titmouse, Sage Thrasher, Bendire's Thrasher, Mountain Bluebird, Vesper Sparrow, Black-throated Sparrow, Sage Sparrow.

Threats and Opportunities:

- Natural gas development on BLM lands.
- Overgrazing of sagebrush shrublands, and sagebrush control.
- Grassland fragmentation.
- Drought-related infestation and die-off of pinyon pine.
- Potential for conservation partnerships with the Navajo and Jicarilla Apache tribes, BLM.

BHCA 3 Jemez Mountains

Location: Primarily in northeast Sandoval County, also the southwest half of Los Alamos County, and portions of south Rio Arriba County. The BHCA lies north of Jemez, Santo Domingo, and Cochiti tribal lands, west of the town of Los Alamos, southeast of the town of Cuba.

Land Management Units and Natural Features:

Bandelier National Monument, Dome Wilderness, Valles Caldera National Preserve, portions of the Santa Fe National Forest, peaks and drainages of the Jemez Mountains including the Rio Cebolla, San Antonio Creek, and upper portions of the Jemez River. (Should be expanded to include the San Pedro Peaks Wilderness)

Priority Habitats:

Montane Riparian, Wet Meadow and Montane Grassland, Ponderosa Pine Forest, Mixed Conifer Forest

Importance to Birds:

- High quality breeding habitat for montane forest and riparian species.
- Extensive montane grassland habitat in the Valle Caldera.
- New Mexico's main nesting colony of Black Swifts at Jemez Falls.

Selected Priority Species:

Northern Goshawk, Blue Grouse, Band-tailed Pigeon, Northern Pygmy-Owl, Black Swift, Red-naped Sapsucker, Williamson's Sapsucker, Olive-sided Flycatcher, Hammond's Flycatcher, Pygmy Nuthatch, Warbling Vireo, Lincoln's Sparrow

Threats and Opportunities:

- Effective livestock grazing management is required to maintain the value of montane riparian and meadow areas.
- History of fire suppression has created overly dense forest stands with potential for catastrophic fire.
- High elk populations preventing aspen re-growth.
- Heavy recreational use concentrated in certain areas, particularly along streams. This is a potential threat to Black Swifts nesting at Jemez Falls.
- Opportunities to work with USFS, NPS, the Valles Caldera Trust and the Rocky Mountain Elk Foundation in managing for priority forest species.
- Restoration potential in ponderosa pine forest through appropriate forest thinning and/or controlled burns.
- Restoration potential in riparian and meadow areas.

BHCA 4 Tres Piedras / North Central Plateau

Location: Primarily northern and western Taos County, also easternmost Rio Arriba County. The BHCA extends north and west of the town of Taos, including the towns of Arroyo Hondo, Questa and Tres Piedras. It lies east of Tierra Amarilla Grant lands, and is bordered by the Colorado state line to the north.

Land Management Units and Natural Features:

Mostly BLM lands, some private and State Trust lands, and small portions of the Carson National Forest. Mostly high sagebrush plateau country west of the Sangre de Cristo Mountains, including the upper Rio Grande flowing south from Colorado and through the Rio Grande Gorge. (Should be expanded to include the Orilla Verde Recreation Area)

Priority Habitats:

Great Basin Shrub, Pinyon-Juniper Woodland, Middle Elevation Riparian.

Importance to Birds:

- Large areas of Great Basin Shrub habitat; the easternmost extension of this habitat type in New Mexico.
- Riparian habitat along the upper Rio Grande and its tributaries.
- Largest Mountain Plover breeding area in state.
- Area of high raptor use along the upper Rio Grande.

Selected Priority Species:

Peregrine Falcon, Prairie Falcon, Mountain Plover, Southwest Willow Flycatcher, Pinyon Jay, Juniper Titmouse, Sage Thrasher, Lazuli Bunting, Vesper Sparrow, Sage Sparrow

Threats and Opportunities:

- Drought-related infestation and die-off of pinyon pine.
- Livestock impacts in shrubland habitat.
- Lack of appropriate management for Mountain Plover.
- Opportunities to work with USFS and BLM to manage for priority species.

BHCA 5 Vermejo and Philmont

Location: Northern and western Colfax County. The area extends from Eagle Nest Lake in the southwest to Raton in the northeast, and is bordered on the north by the Colorado state line. (The mapped BHCA should be extended southwest to the Mora County line, to include the Black Lake Valley)

Land Management Units and Natural Features:

Most of the area falls within two very large tracts of privately-owned land, the Vermejo Park Ranch and the Philmont Scout Ranch. Includes Eagle Nest Lake, the headwaters of the Canadian River, and extensive middle and high elevation habitat of the Sangre de Cristo Mountains.

Priority Habitats:

Alpine Tundra, Ponderosa Pine Forest, Mixed Conifer Forest, Montane Riparian, Wet Meadow and Montane Grassland, Emergent Lakes and Wetlands

Importance to Birds:

- Extensive, high-quality forest habitat
- Montane parks and grasslands
- Riparian habitat along the Canadian River

Selected Priority Species:

Northern Goshawk, White-tailed Ptarmigan, Blue Grouse, Northern Pygmy-owl, Boreal Owl, Red-naped Sapsucker, Williamson's Sapsucker, Olive-sided Flycatcher, Hammond's Flycatcher, Pygmy Nuthatch, Warbling Vireo, Lincoln's Sparrow, Brown-capped Rosy Finch.

Threats and Opportunities

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire.
- Valle Vidal threatened by coal bed methane development.
- Very large tracts of private land with conservation-minded owners.
- Forest and grassland restoration work in progress at Vermejo Park Ranch.
- Extensive wet meadow habitat in the southwest portion.
- Black Lake is productive for waterfowl and can be improved.

BHCA 6 Zuni Mountains and Plateau

Location: Southwestern McKinley and western Cibola counties. Area lies west of Grants and south of Gallup, bordered on the west by the Arizona state line.

Land Management Units and Natural Features:

Mostly Navajo and Zuni tribal lands, and the northwest block of the Cibola National Forest. The BHCA contains most of the Zuni Mountains including Oso Ridge, Bluewater Lake and canyon, McGaffey Lake, Nutria Lake and canyon, Black Rock Lake and the Zuni River.

Priority Habitats:

Ponderosa Pine Forest, Pinyon Juniper Woodland, Montane Riparian, Middle Elevation Riparian, Emergent Wetlands and Lakes

Importance to Birds:

Bluewater, Nutria, and Black Rock Lakes are important for water birds, shorebirds and waterfowl, in migration and in winter. Associated riparian areas important for a number of priority species. High quality Ponderosa Pine forest and savannah habitat in the Zuni Mountains and higher portions of the Zuni Reservation, important to a number of montane species. Extensive areas of healthy pinyon-juniper woodland.

Selected Priority Species:

American Bittern, White-faced Ibis, Bald Eagle, Northern Goshawk, Wilson's Phalarope, Band-tailed Pigeon, Northern Pygmy-Owl, Mexican Spotted Owl, Williamson's Sapsucker, Red-naped Sapsuckers, Lewis's Woodpecker, Loggerhead Shrike, Hammond's Flycatcher, Pinyon Jay, Juniper Titmouse, Mountain Bluebird, Virginia's Warbler, Black-throated Gray Warbler

Threats and Opportunities:

- Livestock grazing may compromise value of riparian areas.
- Contains a diversity of priority habitat types.
- Opportunities to work with USFS in managing for priority species.
- Potential for conservation partnerships with the Zuni tribe, especially in wetland areas.

BHCA 7 Southern Sangre de Cristos and Glorietta Mesa

Location: Western Santa Fe and eastern San Miguel counties. The area is bounded by Santa Fe to the west and Las Vegas to the east, and lies south of the Mora County line.

Land Management Units and Natural Features:

Most of the area lies within the Santa Fe National Forest, including portions of the Pecos Wilderness. Includes the southern extension of the Sangre de Cristo chain, headwaters of the Pecos River, and Glorietta Mesa.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Pinyon Juniper Woodland, Montane Riparian

Importance to Birds:

- Excellent montane forest and riparian habitat with minimal disturbance.
- Good pinyon-juniper habitat on Glorietta Mesa.

Selected Priority Species:

Ferruginous Hawk, Blue Grouse, Long-billed Curlew, Northern Pygmy-Owl, Williamson's Sapsucker, Red-naped Sapsucker, Hammond's Flycatcher, Pinyon Jay, Juniper Titmouse, Warbling Vireo, Virginia's Warbler, Black-throated Gray Warbler, Lincoln's Sparrow

Threats and Opportunities:

- Increasing urbanization of valley and foothill areas.
- Heavy recreational use concentrated in certain areas, particularly along streams.
- History of fire suppression has created overly dense forest stands with potential for catastrophic fire.
- Drought-related infestation and die-off of pinyon pine.
- Opportunities to work with USFS in managing for priority forest species.
- City of Santa Fe is focusing attention on maintaining the health of its watershed.

BHCA 8 Sandia and Manzano Mountains and Estancia Valley

Location: Southeastern Sandoval, southwestern Santa Fe, eastern Bernalillo, and northwestern Torrance counties. Includes the entire Sandia-Manzano chain east of Albuquerque, extending east to central Torrance County.

Land Management Units and Natural Features:

Upper elevation areas lie within the Cibola National Forest. Mostly private lands at lower elevations. Includes both slopes of the Sandias and Manzanos, pinyon-juniper foothill country to the east, and grasslands and farmlands of the Estancia Valley. Important areas include Los Huertas and Upper Baca canyons in the Sandias and Trigo Canyon in the Manzanos. Also includes the Lagunas del Perro.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Pinyon-Juniper Woodland, Plains-Mesa Grassland

Importance to Birds:

- Islands of montane habitat between the southern Rocky Mountain chains and the Gila - Mogollon Rim complex.
- North-south mountain chain is an important migratory route for raptors. HawkWatch International monitoring and banding operation on Capilla Peak in the Manzanos.
- Varied topography with a variety of shrub, woodland and forest habitats supporting a diversity of species.
- Extensive montane shrub areas on the western face of the mountains.
- Broad ecotone of pinyon-juniper, juniper savannah, and grassland habitat in the east mountain area.
- Highest breeding density of Ferruginous Hawks in the state.

Selected Priority Species:

Ferruginous Hawk, Scaled Quail, Snowy Plover, Mountain Plover, Flammulated Owl, Williamson's Sapsucker, Red-naped Sapsucker, Pinyon Jay, Juniper Titmouse, Crissal Thrasher, Warbling Vireo, Virginia's Warbler, Black-throated Gray Warbler, Black-chinned Sparrow, McCown's Longspur (winter).

Threats and Opportunities:

- Increasing urbanization of valley and foothill areas.
- Heavy recreational use concentrated in certain areas.
- History of fire suppression has created overly dense forest stands with potential for catastrophic fire.
- Drought-related infestation and die-off of pinyon pine.
- Loss of grassland habitat due to urban sprawl, agricultural conversion and fragmentation.
- Water issues in the Estancia Valley.
- Opportunities to work with USFS in managing for priority forest species.
- Large population base to draw support for conservation efforts.

BHCA 9 Datil and Gallinas Mountains, Plains of San Augustin

Location: Eastern Catron and northwestern Socorro Counties. This is a large and sparsely populated area, west of Socorro and southeast of Quemado.

Land Management Units and Natural Features:

Upper elevation areas form the southwestern segment of the Cibola National Forest. This area includes rolling pinyon-juniper woodlands in the north, and ponderosa pine at higher elevations. The San Augustin grasslands are comprised mostly of large ranches with a mix of private, state trust, and BLM ownership. Also includes the small North Lake wetland complex northeast of Datil.

Priority Habitats:

Plains-Mesa Grassland, Pinyon-Juniper Woodland, Ponderosa Pine Forest

Importance to Birds:

The Plains of San Augustin form a large, low-lying area of grasslands and dry saltbush flats supporting a number of breeding species, and an important wintering area for raptors.

The relatively low Datil and Gallinas Mountains provide extensive, healthy pinyon-juniper habitat.

Selected Priority Species:

White-faced Ibis, Ferruginous Hawk, Scaled Quail, Mountain Plover, Flammulated Owl, Loggerhead Shrike, Gray Vireo, Pinyon Jay, Juniper Titmouse, Crissal Thrasher, Sage Thrasher, Black-throated Gray Warbler, Vesper Sparrow, Black-throated Sparrow.

Threats and Opportunities

- Shrub encroachment in grasslands due to both drought and grazing practices.
- Drought-related infestation and die-off of pinyon pine.
- Double-H Ranch, at the northern end of the PSA and extending into the Datil/Gallinas mountains complex, was recently deeded to conservation interests for the purpose of wildlife management. Riparian and wetland restoration work is ongoing.
- Potential for conservation partnerships with the USFS, BLM and private interests.

BHCA 10 Chupadera Mesa

Location: Mostly eastern Socorro County, also southwest Torrance and northwest Lincoln counties. The area lies directly south of Mountainair, and north of the White Sands Missile Range.

Land Management Units and Natural Features:

Includes a large block of State Trust land in eastern Socorro County, and some Department of Defense land at the northern end of the White Sands Missile Range. Elsewhere a mix of BLM and private lands. Also includes the Gran Quivera ruins segment of the Salinas Pueblo Missions National Monument. Mostly middle-elevation woodland and scrubland.

Priority Habitats:

Pinyon Juniper Woodland, Plains Mesa Grassland

Importance to Birds:

- High quality, relatively pristine grassland - pinyon juniper ecotone.
- Grassland migratory pathway, important to Long-billed Curlew and other species.
- Important area for Ferruginous Hawks.

Selected Priority Species:

Ferruginous Hawk, Scaled Quail, Loggerhead Shrike, Gray Vireo, Pinyon Jay, Juniper Titmouse, Crissal Thrasher, Vesper Sparrow, Scott's Oriole

Threats and Opportunities

- Shrub encroachment in grasslands due to both drought and grazing practices.
- Drought-related infestation and die-off of pinyon pine.

- Relatively undisturbed area with minimal threat of development.

BHCA 11 San Mateo Mountains and Magdalena Mountains

Location: Southwestern Socorro County. South of Magdalena, southwest of Socorro.

Land Management Units and Natural Features:

Mostly USFS lands within the Cibola National Forest. Includes the Withington Wilderness and Apache Kid Wilderness areas in the San Mateos. Important locations include Water Canyon in the Magdalenas, Beartrap and Pigeon Canyons in the northern San Mateos, and Monticello Canyon in the southern San Mateos. Includes some areas of desert shrub and grassland habitat between and surrounding the two mountain ranges.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Wet Meadow and Montane Grassland

Importance to Birds:

- Contains both Rocky Mountain and Sierra Madrean habitat elements.
- Regular breeders include some Sierra Madrean species, such as Red-faced Warbler, at or near the northeastern limit of their distributional range.
- Great diversity of habitat types across elevations, including good quality ponderosa parklands, dense mixed conifer forest, extensive Gambel oak - conifer associations and open montane grassland areas.
- A relatively remote area with little development and low recreational use.

Selected Priority Species:

Montezuma Quail, Band-tailed Pigeon, Flammulated Owl, Northern Pygmy-Owl, Mexican Spotted Owl, Whip-poor-will, White-throated Swift, Williamson's Sapsucker, Red-naped Sapsucker, Loggerhead Shrike, Gray Vireo, Warbling Vireo, Juniper Titmouse, Bridled Titmouse, Pygmy Nuthatch, Mountain Bluebird, Virginia's Warbler, Grace's Warbler, Red-faced Warbler, Painted Redstart, Black-chinned Sparrow

Threats and Opportunities:

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire, but also for restoration with appropriate forest thinning.
- Opportunities to work with USFS in managing for priority forest species

BHCA 12 San Francisco River Watershed

Location: Western Catron County, extreme northern Grant County. Includes headwaters areas northwest and northeast of Reserve, and the river corridor south of Reserve and turning west south of Glenwood to the Arizona state line.

Land Management Units and Natural Features:

The BHCA fall entirely on USFS land (with the exception of some private inholdings) in the Apache National Forest and the Gila National Forest. Includes portions of the San Francisco Mountains and the Blue Range Wilderness, and lower Whitewater Canyon and the Catwalk area north of Glenwood.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Wet Meadow and Montane Grassland, Montane Riparian, Southwest Riparian

Importance to Birds:

- Extensive southwest riparian habitat, supporting a number of species at or near the northern limit of their range.
- Diversity of montane habitats with Sierra Madrean and Rocky Mountain influences.
- Montane migratory corridor for high-elevation hummingbirds, warblers and other species.

Selected Priority Species:

Common Black-hawk, Montezuma Quail, Band-tailed Pigeon, Yellow-billed Cuckoo, Flammulated Owl, Elf Owl, Mexican Spotted Owl, Whip-poor-will, Lewis's Woodpecker, Olive-sided Flycatcher, Southwest Willow Flycatcher, Gray Vireo, Warbling Vireo, Juniper Titmouse, Bridled Titmouse, Pygmy Nuthatch, Virginia's Warbler, Lucy's Warbler, Black-throated Gray Warbler, Grace's Warbler, Red-faced Warbler, Painted Redstart, Black-chinned Sparrow, Hooded Oriole, Bullock's Oriole

Threats and Opportunities:

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire, but also for restoration with appropriate forest thinning.
- Inadequate grazing management threatens riparian habitat.
- Opportunities to work with USFS in managing for priority forest species.
- High species diversity of this area means high statewide interest in conservation.

BHCA 13 Mogollon Mountains and Gila River

Location: Southern Catron, central Grant and northern Hidalgo counties. Mountain and river canyon areas north and west of Silver City.

Land Management Units and Natural Features:

The Mogollon Mountains segment is on USFS land in the Gila National Forest, and includes much of the Gila Wilderness. South and west, the Gila River flows through a mix of private and BLM lands before reaching the Arizona border. The BHCA includes high mountain forest and riparian areas in the Gila Wilderness, the small towns of Gila and Cliff, Mangas Springs, northern foothills of the Burro Mountains, the Gila River Bird Habitat Management Area, Bill Evans Lake, and the Gila Box.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Wet Meadow and Montane Grassland, Montane Riparian, Southwest Riparian

Importance to Birds:

- Includes New Mexico's best and most extensive areas of southwest riparian habitat with high species diversity.
- The Gila is the largest remaining free-flowing river in New Mexico.
- Diversity of montane habitats with Sierra Madrean and Rocky Mountain influences.
- Includes areas of highest New Mexico nesting density of Southwest Willow Flycatcher and Bell's Vireo.

- Unique desert riverine ecosystem in the Gila Box.

Selected Priority Species:

Common Black-hawk, Peregrine Falcon, Montezuma Quail, Band-tailed Pigeon, Yellow-billed Cuckoo, Flammulated Owl, Elf Owl, Mexican Spotted Owl, Whip-poor-will, Costa's Hummingbird, Magnificent Hummingbird, Lewis's Woodpecker, Gila Woodpecker, Greater Pewee, Southwest Willow Flycatcher, Bell's Vireo, Warbling Vireo, Bridled Titmouse, Pygmy Nuthatch, Virginia's Warbler, Lucy's Warbler, Black-throated Gray Warbler, Grace's Warbler, Red-faced Warbler, Painted Redstart, Abert's Towhee, Black-chinned Sparrow, Hooded Oriole, Bullock's Oriole

Threats and Opportunities:

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire, but also for restoration with appropriate forest thinning.
- Inadequate grazing management threatens riparian habitat.
- Pressures to increase use and management of Gila River flows.
- Opportunities to work with USFS in managing for priority forest species.
- Ongoing habitat restoration at the Gila River Bird Habitat Management Area.
- Statewide, huge interest in the conservation of this area and in keeping Gila River flood regimes intact. Potential to form partnerships with The Nature Conservancy, Audubon, and other conservation groups.

BHCA 14 Black Range and Mimbres River

Location: East Grant, west Sierra, and southeast Catron counties. The area lies east of Silver City and west of Elephant Butte Reservoir.

Land Management Units and Natural Features:

The Black Range segment is on USFS land in the Gila National Forest, and includes the Aldo Leopold Wilderness. Outside of the National Forest the Mimbres River crosses mostly private land to the southern tip of the BHCA. The area includes high montane forest and riparian habitat of Black Range and Mimbres Mountains, and is crossed by the continental divide. Also includes Gallinas Creek, upper portions of north and south Percha creeks, and the Mimbres River from its headwaters to foothill and desert scrub areas east of Silver City.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Wet Meadow and Montane Grassland, Montane Riparian, Southwest Riparian

Importance to Birds:

- Areas of southwest riparian habitat with high species diversity.
- Diversity of montane habitats with Sierra Madrean and Rocky Mountain influences.

Selected Priority Species:

Common Black-hawk, Peregrine Falcon, Montezuma Quail, Band-tailed Pigeon, Yellow-billed Cuckoo, Flammulated Owl, Elf Owl, Mexican Spotted Owl, Whip-poor-will, Magnificent Hummingbird, Greater Pewee, Bell's Vireo, Warbling Vireo, Bridled Titmouse, Pygmy Nuthatch, Olive Warbler, Virginia's Warbler, Lucy's Warbler, Black-throated Gray Warbler, Grace's Warbler, Red-faced Warbler, Painted Redstart, Black-chinned Sparrow, Bullock's Oriole

Threats and Opportunities:

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire, but also for restoration with appropriate forest thinning.
- Inadequate grazing management threatens riparian habitat.
- Opportunities to work with USFS in managing for priority forest species
- Opportunities to work with private landowners along the Mimbres River
- Potential to work with The Nature Conservancy and other conservation groups.

BHCA 15 Animas and Peloncillo Mountains and the Animas Valley

Location: The "bootheel" portion of New Mexico, in south Hidalgo County. Extends from south of the town of Animas to the Mexico and Arizona borders.

Land Management Units and Natural Features:

Southern Peloncillo Mountains are on USFS land in the Coronado National Forest. Most areas in the Animas Mountains and Animas Valley are privately owned, including 500 square-mile Gray Ranch, a former Nature Conservancy purchase now operated by the Animas Foundation. Some limited BLM and State Trust land also present. Includes several well-known birding hot spots including Guadalupe Canyon and Clanton Canyon in the Peloncillos.

Priority Habitats:

Madrean Pine-Oak Woodland, Chihuahuan Desert Scrub, Chihuahuan Desert Grassland

Importance to Birds:

- Mountains and canyons supporting the highest avian diversity in the state, with a strong Sierra Madrean influence.
- Only area of Madrean Pine-Oak Woodland habitat in the state.
- Unique area of Southwest Riparian habitat at Guadalupe Canyon.
- Includes the only known or main New Mexico breeding locations for a number of riparian, montane and grassland species.
- Important area to many species of state concern.
- Desert grasslands important to wintering grassland species.

Selected Priority Species:

Common Black-hawk, Montezuma Quail, Common Ground-dove, Yellow-billed Cuckoo, Whiskered Screech-owl, Flammulated Owl, Elf Owl, Whip-poor-will, Violet-crowned Hummingbird, Lucifer Hummingbird, Broad-billed Hummingbird, Magnificent Hummingbird, Costa's Hummingbird, Elegant Trogon, Gila Woodpecker, Arizona Woodpecker, Greater Pewee, Southwest Willow Flycatcher, Northern Beardless-tyrannulet, Thick-billed Kingbird, Bell's Vireo, Mexican Jay, Mexican Chickadee, Bridled Titmouse, Crissal Thrasher, Bendire's Thrasher, Sprague's Pipit (winter), Virginia's Warbler, Lucy's Warbler, Black-throated Gray Warbler, Grace's Warbler, Red-faced Warbler, Painted Redstart, Abert's Towhee, Botteri's Sparrow, Black-chinned Sparrow, Black-throated Sparrow, Grasshopper Sparrow (*ammolegus*), Baird's Sparrow (winter), Yellow-eyed Junco, Hooded Oriole

Threats and Opportunities:

- Habitat impacts due to illegal immigration and border patrol activities
- Impacts of grazing in canyon and riparian areas
- Gray Ranch seeks to maintain natural values in desert grassland and shrub and mountain foothill habitat, and supports significant research.
- Opportunities to work with USFS in managing for priority species in the Peloncillos.
- Opportunities to work with ranchers and private landowners through the Malpais Borderlands Group, including the use fire in rangeland restoration.

BHCA 16 Luna County Grasslands

Location: A broad area east and south of Demming, covering much of the southeast half of Luna County, also smaller parts of south Sierra, south Grant, and east Hidalgo counties.

Land Management Units and Natural Features:

This BHCA covers large tracts of BLM land, with lesser amounts of State Trust and private land. Includes the Uvas Valley, Florida Mountains, and the Hatchita Valley. Mostly low-lying desert grassland and shrubby upland areas, with several isolated hill and low mountain areas including the Floridas. Much of this area is ranch land used for grazing.

Priority Habitats:

Chihuahuan Desert Grassland, Chihuahuan Desert Shrub

Importance to Birds:

- Extensive desert grasslands of the Uvas Valley and southern Luna County are in good condition and are important to wintering grassland species.
- Important habitat for Sandhill Cranes and geese on agricultural lands.
- Recent Aplomado Falcon sightings in the Hatchita area.

Selected Priority Species:

Ferruginous Hawk, Prairie Falcon, Scaled Quail, Loggerhead Shrike, Bendire's Thrasher, Sprague's Pipit (winter), Black-throated Sparrow, Sage Sparrow (winter), Grasshopper Sparrow (winter), Baird's Sparrow (winter), McCown's Longspur (winter)

Threats and Opportunities:

- Habitat impacts due to illegal immigration and border patrol activities.
- Fragmentation of grasslands by agricultural conversion, shrub encroachment and development.
- Potential to form conservation partnerships with BLM and private landowners.

BHCA 17 Sacramento Mountains and Drainages

Location: South Lincoln and north Otero counties. The area lies south of Carrizozo and (mostly) east of Alamogordo.

Land Management Units and Natural Features:

Much of the area in the Sacramento Mountains is on USFS land in the Lincoln National Forest. Another large segment is tribal land of the Mescalero Indian Reservation. The BHCA encompasses the population centers of Ruidoso and Cloudcroft, extensive montane forest and grassland areas, and major drainages from the Sacramento Mountains including the Rio Bonito, Rio Hondo, Rio Penasco, and Tularosa Creek. A small finger extends west of Alamogordo to include Holloman Lakes, just east of White Sands National Monument.

Priority Habitats:

Mixed Conifer Forest, Ponderosa Pine Forest, Montane Riparian, Wet Meadow and Montane Grassland, Emergent Wetland

Importance to Birds:

- Large size and isolation of the Sacramento Mountains, and diversity of habitats across elevations, allow this range to support a high diversity of resident and migrant species.
- Holloman Lakes is one of the state's most important shorebird areas, important to breeding Snowy Plovers and other shorebird species during migration.
- Probably the state's highest density of Mexican Spotted Owls in the Lincoln National Forest.
- High quality riparian habitat in several drainages including the Hondo Valley.

Selected Priority Species:

Northern Goshawk, Ferruginous Hawk, Common Black-Hawk, Band-tailed Pigeon, Flammulated Owl, Mexican Spotted Owl, Whip-poor-will, White-throated Swift, Magnificent Hummingbird, Red-naped Sapsucker, Pinyon Jay, Violet-green Swallow, Juniper Titmouse, Warbling Vireo, Virginia's Warbler, Black-throated Gray Warbler, Black-chinned Sparrow, Lincoln's Sparrow (**Holloman Lakes:** Snowy Plover, Wilson's Phalarope (migration)).

Threats and Opportunities:

- History of fire suppression has created overly dense forest stands with potential for catastrophic fire, but also for restoration with appropriate forest thinning.
- Overly aggressive timber harvest may threaten remaining high-quality forest stands, including Mexican Spotted Owl habitat.
- Inadequate grazing management threatens riparian habitat.
- Extensive urban sprawl and visitor use around Ruidoso.
- Potential to work with the USFS to manage Lincoln National Forest lands for priority species.
- Potential to form conservation partnerships with the Mescalero Apache Tribe.

BHCA 18 Otero Mesa

Location: South Otero County. The BHCA lies to the south of the Sacramento Mountains and extends to the Texas border.

Land Management Units and Natural Features:

Most of the BHCA is BLM land, with a lesser amount of State Trust land and some private holdings. It contains extensive areas of Chihuahuan Desert habitat, primarily grasslands. Much of this area is ranch land used for grazing.

Priority Habitats:

Chihuahuan Desert Grassland, Chihuahuan Desert Shrubland

Importance to Birds:

- Probably the best, most extensive, and least fragmented Chihuahuan Desert Grassland habitat in the state.
- Important habitat for wintering grassland species.
- Important habitat for raptors and Burrowing Owls.
- Recent sighting of Aplomado Falcon in the area. Possible reintroduction and recovery site for this species.

Selected Priority Species:

Ferruginous Hawk, Prairie Falcon, Aplomado Falcon, Scaled Quail, Loggerhead Shrike, Bendire's Thrasher, Crissal Thrasher, Sprague's Pipit (winter), Black-throated Sparrow, Baird's Sparrow (winter), McCown's Longspur (winter)

Threats and Opportunities

- A major increase in oil and gas leasing and development has been proposed for this area. The BLM is currently completing an Environmental Impact Statement for the proposal.
- High-profile area of conservation concern statewide. A coalition of conservation and ranching interests has formed to oppose extensive mineral development.

BHCA 19 Southern Guadalupe Mountains, Carlsbad Caverns and the Black River

Location: South Eddy County. The BHCA is south and southwest of Carlsbad, extending to the Texas border.

Land Management Units and Natural Features:

Includes the southern half of the Guadalupe Mountains segment of the Lincoln National Forest, all of Carlsbad Caverns National Park and mostly BLM and State Trust lands to the south and east. Much of this is ranch land used for grazing. The Guadalupe Mountain segment includes isolated areas of montane forest and shrub habitat. Desert shrub predominates at lower elevations and in the National Park, with riparian areas along the Black River and Delaware River.

Priority Habitats:

Ponderosa Pine Forest, Pinyon Juniper Woodland, Chihuahuan Desert Shrub, Middle Elevation Riparian

Importance to Birds:

- The Guadalupe are the most isolated island of montane forest habitat in the state.
- High quality desert shrublands with protected status.
- Black and Delaware rivers have high desert riparian value.
- Includes the riparian oasis of Rattlesnake Springs and adjacent habitat along the Black River, known for its high diversity of migrant and resident species including a breeding population of Bell's Vireo.

Selected Priority Species:

Scaled Quail, Band-tailed Pigeon, Yellow-billed Cuckoo, Flammulated Owl, Whip-poor-will, Magnificent Hummingbird, Bell's Vireo, Gray Vireo, Crissal Thrasher, Pinyon Jay, Juniper Titmouse, Warbling Vireo, Virginia's Warbler, Black-throated Gray Warbler, Black-chinned Sparrow, Black-throated Sparrow, Varied Bunting, Painted Bunting, Hooded Oriole, Bullock's Oriole.

Threats and Opportunities

- Ongoing oil and gas development on BLM and State Trust lands
- Area of high concern due to unique features and high diversity.
- Opportunities to work with USFS, NPS, and private interests to conserve priority species

BHCA 20 The Middle Rio Grande

Location: This BHCA is a long, north-south corridor in central New Mexico, extending from the Otowi Bridge east of Los Alamos in north Santa Fe County, to the headwaters of Elephant Butte Reservoir in south Socorro County.

Land Management Units and Natural Features:

The BHCA passes through and includes portions of the following: Bandelier National Monument, Cochiti Pueblo, Santo Domingo Pueblo, San Felipe Pueblo, the villages of Bernalillo and Corrales,

Sandia Pueblo, the city of Albuquerque, Isleta Pueblo, the town of Los Lunas and Belen, the Sevilleta National Wildlife Refuge, the city of Socorro, the Bosque del Apache National Wildlife Refuge. It includes Cochiti Lake, wetland complexes at the national and state wildlife refuges, and San Marcial marsh above Elephant Butte. It includes extensive riparian habitat areas, among them the Bernalillo, Corrales, and Albuquerque bosque, and pueblo lands along the Rio Grande. It extends east-west to include the lower portions of a number of tributaries to the Rio Grande, including the Santa Fe River, Galisteo Creek, and the Jemez River.

Priority Habitats:

Middle Elevation Riparian, Emergent Lakes and Wetlands

Importance to Birds:

- The largest and most important area of Middle Elevation Riparian habitat in New Mexico
- Important migratory route along the Rio Grande Valley
- Riparian bosque habitat widely used by large numbers of resident and migrant species
- The state's largest wetland complex at Bosque del Apache, supporting large numbers of wintering waterfowl, and migrant and resident waterbirds and shorebirds.
- Water bird nesting at San Marcial marsh.

Selected Priority Species:

Eared Grebe, Clark's Grebe, Western Grebe, Neotropic Cormorant, Double-crested Cormorant, American Bittern, Least Bittern, Snowy Egret, Green Heron, White-faced Ibis, Bald Eagle, Northern Harrier, Yellow-billed Cuckoo, Lewis's Woodpecker, Southwest Willow Flycatcher, Bell's Vireo, Bank Swallow, Lazuli Bunting, Bullock's Oriole.

Threats and Opportunities

- River management has decreased floodplain activity and incised the river channel, preventing overbank flooding necessary for regeneration of native cottonwood and willow.
- Extensive invasion by exotic salt cedar and Russian olive; however, these may be important habitat in the absence of native dominants.
- Drought and increasing demand for water have reduced downstream flows.
- Extensive development surrounding and use of the riparian corridor as it passes through populated areas.
- Large population base supportive of conservation and restoration.
- Extensive river and bosque restoration work in progress, including activities by the various pueblos, the Bureau of Reclamation, and the Army Corps of Engineers.
- Partnership and funding opportunities through the Middle Rio Grande Endangered Species Act Collaborative Program
- Recovery management is in progress for the Southwest Willow Flycatcher, a federally listed species.
- Long-term monitoring and banding ongoing at the Rio Grande Nature Center in Albuquerque.
- High potential for successful educational and outreach programs, through public schools, refuges (including Bosque del Apache's Festival of the Cranes), the Rio Grande Nature Center and other groups and institutions.